

THE JOURNAL

OF THE

Michigan State Medical Society

ISSUED MONTHLY UNDER THE DIRECTION OF THE COUNCIL

THE advances in medicine and the advantages that have accrued therefrom have been entirely the result of the application of the rational method of observation and experiment. To control nature we must above all things understand nature. Neither the conception of nature as the kind old nurse nor the conception of nature ravening red in tooth and claw will stand. Least of all can we tolerate the picture of nature as a bountiful mother. If we go to her asking something for nothing, she (far from bountiful) will give us little but what we have given her, and to him who begs she gives no more than a beggar's portion.

—Dr. Charles Singer in
A Short History of Medicine.



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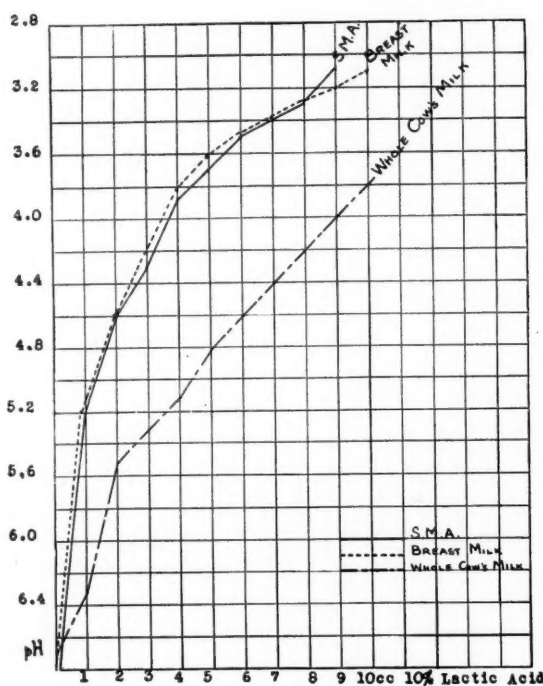
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Question

Why is it not necessary to add an acid to S. M. A.?

Answer

For the same reason that it is not necessary to add an acid to breast milk. (See Chart)



This chart shows the buffer curve of breast milk and cow's milk – and the similarity of the buffer curve of S. M. A. and breast milk.

S. M. A. SAMPLES?

WE WILL BE PLEASED TO SEND THEM.

*S. M. A. is Produced by permission of the
Babies and Childrens Hospital of Cleveland*



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MEDICAL EXPERIENCES IN HYPERTHYROIDISM

A. F. JENNINGS, M. D.

DETROIT, MICHIGAN

The following observations were made upon a series of 92 cases seen by us during the past six years. They comprise all of our patients who were considered to be in a state of thyroid hyperactivity, at least during some period of their study. Of this number, 59 were, during the period of our treatment, non-operative cases. Eight were at first apparently non-operative, but later were considered operative, and 25 were surgical from the first.

The 67 medical cases were divided into the following groups:

Colloid goiter with hyperactive symptoms 14, of whom one later became surgical; patients with goiter and hyperactive symptoms which were due to associated diseases 18, and of these two later became surgical; so-called medical hyperthyroidism 21; and neuroses 14, of whom five are included in our own surgical group, and three had been operated before coming under our care.

The colloid goiter group with hyperactive symptoms—14 patients had for presenting symptoms tachycardia, palpitation, pounding heart, dyspnea, nervousness, poor sleep, irritability, weakness, fatigue,

flushes, perspiration and loss of weight. The nervousness stands out rather prominently as a symptom, yet while they are describing it the patients present a cow-like placidity. They lack the intense restless expectant appearance of the true hyperthyroid case. Another inconsistency in the history is that of weight. Six patients stated that they had lost from 10 to 25 pounds, yet none of them appeared to be poorly nourished.

In age, the patients were mostly young. Seven were below 30, four were in the fourth decade and three were in the fifth. The blood pressures were, on the average,

* Chairman's Address, Medical Section of the Michigan State Medical Society, Detroit, September 27, 1928.

low, the four raised pressures being found in two cases having had previous operations for hyperthyroidism, one case of age 41, and one case which later developed a severe thyrotoxicosis. Five cases showed tremor, three forceful precordial activity and nine tachycardia. The basal rates, with three exceptions, were from 2 to 23 below normal. Two of the patients had raised basal rates at first—namely, 35 and 20, but these were found subnormal on subsequent examination. The patient who later became a severely toxic case showed originally a basal rate of nine plus.

Only three of the 14 patients were uncomplicated. Two had followed thyroid operation, one of these being a true exophthalmic case, the other presenting no convincing history that hyperthyroidism had ever existed. Five had definite infection in nose, throat and teeth, two had chronic appendicitis and one chronic cholecystitis. One patient, a slightly obese placid individual, with a basal rate of minus 23, had a pulse rate of 140 which was due to auricular tachycardia. Iodine was of no benefit to her, but digitalis was. One patient was completely misjudged. Considered at first to be a simple goiter with bad tonsils, she was advised to undergo a tonsillectomy. She was not seen again for six months, during which time a definite hyperthyroidism developed. She finally went to a surgeon who removed her tonsils without consideration of her medical condition, and when next seen by us she had a basal rate of plus 98, with corresponding signs. A review of her history shows that the mistake was one of lack of judgment, for all the signs of true hyperthyroidism are recorded on her chart, with the exception of the basal rate. I hope we will not make such a mistake again.

The thyroid glands in all these cases were the soft diffuse type, and what nodules were present were of the soft variety. The firm diffuse enlargement or the hard discrete nodules found in practically all of our surgical cases were not present in this group.

Five of these patients were seen only once. One became a severe thyrotoxicosis. The remaining seven have recovered—three on thyroid gland substance, three upon removal of focal infection and one, the patient with auricular tachycardia, with removal of infected tonsils and the use of digitalis.

In an endemic goiter region it is highly probable that persons having inactive goiters should suffer from the other common diseases. We had eighteen such patients in our series. Eight had upper respiratory

tract infections, two pelvic inflammatory disease, three hypertension, one mitral stenosis, one mitral stenosis and pulmonary tuberculosis and three were unclassified. The presenting symptoms included weakness, dyspnea, tachycardia, palpitation, choking, poor sleep, and loss of weight. The thyroid glands were of the soft variety, even though nodules were present, with the exception of the two patients who were operated upon. In one of these two the gland was diffuse and firm, though small, and in the other it was firmly nodular. The basal metabolic rate was in general normal or moderately elevated, while in three it was unusually high, +63, +63 and +58 being recorded and in none of these cases was true hyperthyroid disease present. Five of these patients were under and 13 over 30 years of age, the oldest being 70 and five being over 50. Seven of the patients had raised blood pressure, six of them being in persons of the cardiovascular disease age, and one, the mitral stenosis case, being unexplained. Fourteen showed tachycardia. The physical examinations showed the usual findings of their diseases. The nervousness so characteristic of the hyperthyroid patient was absent and there was no obvious emaciation.

Several cases might be cited:

A woman of 40 had for 10 months shown a typical picture of hyperthyroidism. Lugol's in full doses had been of no benefit. Focal infection had been attacked by the removal of several teeth, and she then developed acute auricular rheumatism. When she came under our care there was severe chronic tonsillitis besides her rheumatism. The basal rate was +62 and +52. After a prolonged rest in bed she made a complete recovery both of the rheumatism and of the thyroid symptoms. It is possible that she was a true hyperthyroid case that subsided coincidentally with an acute infectious disease, as sometimes happens, or her thyroid symptoms may have been purely those of infection.

Another woman, age 60, had for one month suffered from tachycardia, marked loss of weight, nervousness, dyspnea and edema. Her basal rate was +52 and +63, and the pulse 116. The blood pressure was moderately elevated, but the cardiac examination did not give us the impression that the heart had been strained. We finally found out that she had been to great exertion when a hard rain had flooded her cellar, and her symptoms followed this. On purely cardiac treatment she recovered completely and she died a year later of sarcoma of the lung.

Another woman of 39 had for six months noticed dyspnea, weakness, loss of weight and fatigue. She had spent many sleepless nights over a sick child. The pulse was 136 and the basal rate +25. She fully recovered after a nurse had been set to watch the child and a severely septic tooth had been removed.

A more difficult case was of a woman, age 70. Her symptoms were clearly cardiac, with dilated heart and moderately raised blood pressure. She had, however, a goiter of the true fetal adenoma type of moderate size, such as we believe results in hypertension and cardiac weakness. Her pulse was 104 and the basal rate +32. Because of her age, social condition, and feeble heart she was treated by rest and has improved considerably. Had she been seen earlier in life, I think surgery would have been justified. We have seen a few elderly people who have had strenuous and active lives who have carried such a goiter without harmful effects.

Two cases have proven to us that true hyperthyroidism can occur in patients suffering from other disease. Such a case occurred in the wards of Harper Hospital, a woman, age 39, having had symptoms for six years. Mitral stenosis was present and X-ray revealed a tubercular lesion, though we could not convince ourselves that it was active. For several weeks we could not feel that there was a thyroid element present, but, despite rest, her pulse remained rapid, and her basal rate was +50. She was restless, her expression was intense and anxious, she was emaciated and her goiter was of the firm nodular type. Her respiration was rapid and shallow. We finally concluded that she was a surgical case and she was greatly improved after operation.

Another such patient, a woman, age 43, had a blood pressure of 200 systolic and 100 diastolic, and a basal metabolic rate of +30. She was over energetic, restless and nervous. She showed slight exophthalmos, moist skin, tremor and flushing. Operation was finally decided upon and revealed a hyperplastic concealed goiter, and she has been much improved since then, though the blood pressure remains elevated.

Seven of these patients were lost sight of after their first visit. The remaining 11 have improved or recovered under treatment directed to their underlying condition.

Twenty-one patients were classed as true hyperthyroidism, but operation was not advised. In seven of them the diagnosis is rather dubious at this time, though it was pretty well accepted while the patients

were under observation. The group is distinguished as a whole by greater intensity of signs and symptoms. Nervousness was obvious as well as subjective and tachycardia was common.

Four adults presented a well defined syndrome of thyrotoxicosis. Three were over and one was under 30 years of age. Nervousness was apparent by a restlessness, anxious facial expression and shallow rapid respiration. Emaciation was observed in all, with weight losses up to 40 and 50 pounds. Tachycardia was persistent and severe in all and the basal rates were from +34 to +48. The thyroid glands were of the diffuse rather firm type. All of the patients are known to have recovered. One was a school teacher of 21 who had prominent symptoms. She had severe focal infection of tonsils and teeth, and was our most striking cure by this method of attack. Another, a woman of 50, recovered on rest and the third, age 35, on Lugol's.

The right to call these patients medical rather than surgical can be seriously questioned. In fact, we were on the point of advising surgery in each of them when improvement began, which went on to recovery. They all co-operated splendidly.

There were five girls, ages 14 to 16 years, who had clinical hyperthyroidism. They all gave a history of tachycardia and some loss of weight, despite a large appetite. Four were nervous, irritable, and overactive, while one showed lassitude. They were restless and apprehensive, the skin was moist and fine tremor was present. They all showed forceful cardiac activity. Blood pressure was raised in four, the highest reading being systolic 142 and diastolic 72. The basal metabolic rates did not prove satisfactory. Two were so upset they could not attempt it, and one failed her first test. Another one taken a few months later was minus 1, but this finding did not change our diagnosis. In the other two the basal rates were +30 and +29, dropping to 0 and +17 with improvement. The thyroid glands were enlarged, firm and vascular in three and firm nodular in two. They have all recovered.

All of these girls had been taking iodine salt before the onset of their symptoms. One had taken iodine by prescription previously and had become worse. We gave her 10 mgm. daily for a while, with improvement resulting. We expected an epidemic of this sort, but fortunately we have had no more such cases in the last two years. Except for the one patient, iodine was completely withdrawn and bromides were pre-

scribed. These girls were all free of focal infection.

Five patients had firm nodular goiters and all of them were over 35 years of age. None of them was the type commonly termed toxic adenoma. They complained only of vague nervous symptoms—weight loss was not noticeable and the basal rates were elevated in only two and then not above +23. Tachycardia was observed in four and slow pulse in one. Blood pressure was raised in three patients, which shows the potentiality of cardiovascular damage in cases of adenoma with mild symptoms. We believe now that adenoma cases of this sort are subjects for surgical treatment, as well as the toxic cases. While we were deliberating over their future all of these patients passed from our observation. I am sure they have not recovered and that we would have had them operated.

The remaining seven cases probably should have been included in our first two groups, though it cannot be denied that because of intensity of symptoms we considered them mild hyperthyroid cases while they were under observation. Four of the patients were of the colloid goiter type. One appears at this date more cardiac than thyroid. Another was a nurse who was operated for acute appendicitis, and then nursed her sister through a long illness of which she died. She was probably a case of simple goiter with nervous exhaustion. Her basal rate well along in her recovery was minus 1. Three other cases had complicating diseases—one two recent operations, on gastric ulcer and one cholecystitis.

To differentiate a neurosis in the presence of a goiter is a hazardous undertaking. We had 14 such cases. A nervous irritability was the outstanding feature, which took the form of vague fears, unexplained and varying symptoms, introspections, exaggerations, excessive reaction to environment, and the tendency to find something of which to complain. Three of these patients were hyperthyroid. One was a man, age 33, whose symptoms began after a terrifying industrial accident, when the grate of a live furnace on which he was working fell upon him. The element of neurosis was very prominent, but he had a firm nodular goiter and a basal rate of +30, and these features influenced us to advise surgery. This was not approved of by either his employer or himself. Another was a woman whose illness began before the days of modern thyroid surgery. Her operation was delayed overlong and cardiovascular disease supervened, of which she died.

Four of these patients were operated upon without relief. One of them was a young married woman who had had four children in rapid succession. She lived an intense social life and used tobacco, coffee and alcohol to excess. She had attacks of intense anxiety with tachycardia and dyspnea, usually at night. She was always in fear of her heart and her goiter. She was extremely vindictive over her operative failure. Her attacks persist, her basal rate is +11, and she reacts badly to thyroid medication. She is overweight and lacks the usual signs of thyroid hyperactivity.

Five other cases were not hyperthyroid. Three of them are still unclassified and another uses her goiter as a smoke screen when she becomes annoyed at her affairs, or when life otherwise becomes dull. The fifth had persistent tachycardia for years with constriction and tightness of the chest and apprehension. She had a blood pressure of 160 systolic and 110 diastolic. The basal rate was done once with the result of +100, but she was so nervous and upset that this could not be relied upon and it was not repeated. Her husband finally deserted her, leaving her with two children. Her martyrdom quite took the place of her symptoms and she has completely recovered, with, however, a moderately elevated blood pressure. I sometimes think that she may possibly have been a thyroid case after all.

The remaining two cases were operated. One, a young married woman with three children, was first seen in 1909. She was overstimulated, tired and depressed, introspective, and had chronic colitis. There was a diffuse soft thyroid enlargement, her weight fluctuated and there was tachycardia at times. Her symptoms were varied and she was seldom well. The first basal rate was done in 1921 and was +18. In 1925 secondary exophthalmic goiter occurred which was cured after operation. Her neurosis, however, remains and has been accentuated by the premature death of her husband. The second patient had a small colloid goiter about which she worried incessantly and to which she attributed many normal bodily sensations. She finally began using iodine in large amounts externally and internally, and then she developed definite hyperthyroidism which was cured by operation.

Thirty-three of the 92 cases were classed as operative. Seven of these were primary exophthalmic, five presented diffuse enlargement of the thyroid without adenoma or exophthalmus, sixteen were toxic adenomata and five were adenomata without the true thyrotoxicosis. With the excep-

tion of the five non-toxic adenomas all the cases presented definite evidence of thyrotoxicosis. Weight loss was usually obvious and definite. While nervousness was not an outstanding complaint the patients were restless, intense, and they showed a peculiar anxiety which was nevertheless without fear, a condition peculiar to the hyperthyroid patient. Respiration was frequently quick and shallow. In only four was the basal metabolic rate below +20, the records being +19, +5, +1 and +9. In the first three the basal rate was ignored in the face of clinical hyperactivity and in the fourth we allowed ourselves to be misled by the low rate with embarrassing later consequences. In only six was the age below 30, the youngest being 22, and three of these were primary exophthalmics. Four cases showed normal blood pressure, the rest showing raises of various degrees. The characteristic blood pressure of the hyperthyroid case is systolic about 140 and diastolic about 70. This was almost constant in the primary exophthalmic cases and common in the others, though the latter showed considerable variation.

One of the patients of the primary exophthalmic type, a woman of 70, had a fulminating toxic state and died of it several months after the onset of her symptoms without operation. The iodine treatment might have made operation possible. Another had her illness some years ago and was treated medically. Her disease eventually subsided but she has been an invalid ever since and at present has moderate hypertension.

Five patients showed a diffuse firm enlargement of the thyroid gland without adenoma and without exophthalmus. Only one of them presented the complete hyperthyroid syndrome. One had a basal rate of +5 but was clinically hyperactive.

In three the disease was characterized by persistent tachycardia and a raised metabolic rate. One of them had marked hypertension and restlessness. Another, a woman of about 50 had had typical exophthalmic goiter at the age of 25. This subsided without leaving any damage but recurred this year following a period of hard nervous strain and a badly infected tooth. The third, a man of 63, had for years suffered from prolonged attacks of bronchitis with the primary focus in the tonsils and maxillary antrum. A diagnosis of tuberculosis had been accepted by him. When he came under our care his symptoms were no different than he had had for years though more intense. Tachycardia and muscular weakness were his only com-

plaints. He was the most composed thyroid case I have ever seen, though this was the result of years of self-training, and there was an eager mental alertness underneath.

Seven of the toxic adenoma patients have been mentioned previously as having had various medical problems to be solved. The rest were surgical without concern to the internist. One patient, the youngest of our operative group, died of a thyroid crisis a few days after operation.

Five patients showed adenoma without the usual thyrotoxicosis state. The main symptom in four of them was nervous irritability. There was no weight loss. The pulse was not elevated and the basal rates were within normal limits. The one sign warranting operation was the presence of a hard discrete adenoma in an otherwise normal gland. Three have improved after operation, but the fourth has not done so and is also listed under neurosis. The fifth case presented auricular fibrillation only. He was a chronic alcoholic and had chronic tonsillitis and moderate hypertension. He refused operation.

Summing up we find that of 92 cases in whom hyperthyroidism was strongly suspected 33 or 36 per cent were eventually considered to be proper surgical patients and five were probably surgical, a total of 41 per cent. Fifty-four or 59 per cent could not be recommended for this procedure. It has seemed to us that because of the recognized uncertainties of the diagnosis and because of our zeal to afford early surgical relief we have stretched our diagnostic criteria to too great limits. It has become the medical custom of the day to recommend surgery in every patient who has a goiter and who complains of nervousness, tachycardia and loss of weight. We have shown in the preceding pages that many such cases are not hyperthyroid at all.

Several diagnostic points are obvious to us. The hyperthyroid patient does not complain much of nervousness. She shows however, a continued mental and physical restlessness and presents an anxious, intense yet smiling countenance. The nervousness that she may have does not seem to cause her much concern. When the patient starts out to tell the physician how nervous she is and especially if this nervousness leads to introspections, anxieties and fault finding we should strongly suspect some other condition. The hyperthyroid shows weight loss by emaciation while the non-toxic case usually is well nourished even though her story is to the contrary. The respiration is often rapid,

shallow and thoracic in type in the toxic case, slower and less obvious in the non-toxic one. The hyperactive goiter is usually accompanied by a slight rise of the systolic pressure with a normal or subnormal diastolic pressure except, of course, when arterial degeneration has begun. The goiter patient below 30 years of age is seldom hyperthyroid, the patient above that age frequently is. All of our operative cases showed either a firm diffuse or a hard nodular goiter, the non-operative cases being of the softer type. A hard discrete nodular adenoma is almost always indication for surgery in persons past the age of 30. The tachycardia to be of significance must be persistent on repeated examinations or it must be present while the patient is at rest and free from nervous stimulation.

The basal metabolic rate has the same significance in this disease as any other instrument of precision. It is usually raised on several tests in the hyperthyroid case while in the sub-thyroid patient it is below normal. In four cases that were not thyrotoxicosis the rate was persistently high while in five others that were clinically hyperactive it was low. In one of the latter cases the rate misled us into putting off surgery until a severe toxicosis appeared. We are forced to accept the basal rate as a very important sign, yet one to be ignored in the face of definite clinical evidence to the contrary. The neuroses, the acute infectious diseases and some chronic diseases may result in a high rate.

Some of the cases did not present the complete clinical syndrome of thyrotoxicosis. In these any one of the classical signs, if persistent and associated with tachycardia and a raised basal rate, will establish the diagnosis.

It is our opinion that the most important medical problem in the care of goiter patients today is that of diagnosis. The tremendous advance in surgical technic that has been made in the last few years renders this point doubly important. In a district where goiter is endemic many complications arise in each individual patient, which can be solved only by the most painstaking study and thorough examination. Definite standards for diagnosis must be recognized in this as in any other disease, and when these cannot be clearly demonstrated the patient and physician should be content with whatever period of observation may be necessary.

We have not used iodine as a medical treatment, except in one case which, fortunately, recovered. When the iodine treatment of goiter was revived several

years ago one of our patients died of a fulminating thyrotoxicosis after taking it. Another patient developed a toxic from an apparently simple goiter after taking Lugol's for some months. These experiences did not encourage us. Besides these, eight of our medical cases and five of our surgical ones had taken iodine by prescription before coming under our observation. It did not seem to have influenced the symptoms one way or the other.

When the use of iodine salt became general in this state it was natural that certain hyperthyroid patients gave the story of using it before the onset of their symptoms. While this story was common a few years ago it is not so apparent at the present time. While we have no reason at present to blame the salt for our hyperthyroid cases, it is certain that this salt does not prevent hyperthyroidism, for many of our cases have developed this disease while taking it. It has been quite well proven in this state that the use of about 400 mgm. of iodine a year has materially reduced the incidence of simple goiter in school children. It will be interesting to see what the hyperthyroid rate will be when these children grow up.

Fifty-six per cent of the whole group showed evidence of chronic focal infection. The greatest number of these were infections of the tonsils and teeth, with a few each of nasal accessory sinus, ear, gall bladder, appendix and pelvic organ infections. The difference in percentage of this complication in operative and non-operative cases was very slight, 54 in the former and 58 in the latter. An analysis of the separate sub-groups shows, however, striking differences. Chronic infection was very common (75 per cent of the cases) in those patients not clearly hyperthyroid and very uncommon (33 per cent) in the neuroses. The percentage was 49 in the non-operative hyperthyroid cases. Of the surgical cases, chronic infection was fairly common in the adenomatous goiters and the hyperplastic thyroids—namely, 63 and 60 per cent, but rare in the primary exophthalmics. In the latter class only one case is recorded and that is questionable.

Distinct activity of the local infection immediately preceded the onset of the hyperthyroid symptoms in 14 cases—seven operative and seven non-operative. Twelve patients in the medical group were apparently cured by surgical removal of the local infection, while in six cases this procedure was without value. Removal of the focal infection was attempted as a therapeutic measure in eight of the surgical cases without benefit. It was evident that this

procedure was of value only in the borderline and questionable cases and that it had practically no influence in the fully developed hyperthyroid patient. The one exception to this statement was a young school teacher of 23, who presented the complete thyrotoxicosis syndrome with extensive and severe infection of teeth and tonsils. She eventually recovered completely when these had been attended to.

Two cases did badly on this treatment. One was a woman of 47 who had several teeth extracted and then neglected her medical care for over a year. When she returned to us her condition was considerably worse. The other was a young woman in whom we made a diagnosis of simple goiter on the basis of a metabolic rate of +9, though she had all the clinical signs of hyperthyroidism. Six months later, when her symptoms had become much worse, she went directly to a surgeon who removed her tonsils. After this she became desperately sick and had to have an im-

mediate thyroidectomy. The bad outcome in these two cases resulted from lack of co-operation on the part of the patients and would not have occurred had they been consistent in their medical attendance.

The fact the 52 of these 92 patients showed focal infection and that in 14 of them the infection immediately preceded the thyroid symptoms, makes us believe that in the simple or smaller adenomatous goiters chronic infection is one factor that may bring on hyperactivity. While we believe that removal of this infection is of certain curative value in the borderline cases, it is not of benefit in the fully developed ones. The search for such foci should be as much a part of the medical examination of the goiter patient as is the basal metabolic rate. If any focus is discovered it should be removed while the goiter is inactive. If the goiter is hyperactive, proper thyroidectomy should be done and after that all areas of infection should be eradicated at the earliest possible moment.

NOBEL PRIZE AWARD MAY START CONTROVERSY

"Synthetic cod liver oil", stuff that builds bones and prevents the childhood disease of rickets without the unpleasant taste of the fish oil, was recognized when the 1928 Nobel Prize for chemistry was awarded to Dr. Adolf Windaus of Goettingen, Germany. This is the first time that the Nobel Prize Committee has recognized any of the scientific work done on the problems of human nutrition. The work for which Dr. Windaus received the prize was the successful repetition of experiments proving that ultraviolet light, either in the sunlight or artificially produced, will activate the chemical called ergosterol and confer on it antirachitic properties. According to information available here the experiments were originally performed by Prof. George Barger of the University of Edinburgh. Dr. Windaus was so impressed by Dr. Barger's original results that he asked permission to collaborate with Barger in subsequent work on the problem. Windaus himself had been experimenting along similar lines without achieving definite results.

A scientific controversy may arise from this Nobel prize award since priority honors and patent rights are involved in the situation. While the prize was awarded to Dr. Windaus, the subject of the antirachitic properties of foods has engaged the attention of scientific investigators both in this country and Europe for many years. The work along these lines began when Dr. E. V. McCollum and his associates at the Johns Hopkins University found that a substance, known as vitamin D and found in cod liver oil and to a lesser extent in other fats, has the power of preventing rickets. These scientists also were the first to find that irradiating animals by exposing them to ultraviolet rays would keep the animals from having rickets even if the antirachitic vitamin D was not in their diet.

The next step was taken by Prof. Harry Steenbock of the University of Wisconsin who instead of irradiating animals tried irradiating their food.

He worked with a mixture of foods and found that irradiation gave the foods the antirachitic power. Commercial production of irradiated foods is now under the Steenbock patent. Dr. Alfred E. Hess of Columbia University irradiated the different classes of foods separately found that the antirachitic substance was contained in fats. He and everyone else believed for some time that it was the cholesterol of fats that was the antirachitic substance.

Then in July, 1926, Dr. Barger and his associates in England announced that pure cholesterol cannot be activated by ultraviolet rays, but that irradiation does activate ergosterol which is found as an impurity in ordinary cholesterol not purified by a special process. They believed ergosterol had the antirachitic property. Dr. Windaus repeated their experiments, and again tested cholesterol which had been specially purified. He proved definitely that it is ergosterol and not cholesterol which is activated by exposure to ultraviolet light. Dr. Barger and his associate, Dr. T. A. Webster, have also proved by experiments with animals that this activated ergosterol can prevent rickets.—Science Service.

PURE SCIENCE WINS PRIZE AWARD FOR GERMAN

Pure science scored over practical and applied science once more. The award of the Nobel Prize for chemistry for 1927 to Prof. Heinrich Wieland of Munich, Germany, is in recognition of experiments on the highly complex compounds known as the bile acids. Dr. Wieland has discovered the structure of the substance which gives bile its color, and has found the relation between this compound and chlorophyll, the coloring matter of green leaves, and hemoglobin, the coloring matter of blood. His work has no medical or practical significance at present and is of interest solely in the field of chemistry.—Science Service.

ENDOCRINAL DISTURBANCES OF EMOTIONAL ORIGIN*

CARL D. CAMP, M. D.

ANN ARBOR, MICHIGAN

The subject of endocrine disturbance of emotional origin involves not only a study of the changes in the endocrine secretions, but also consideration of what is really meant when we speak of "emotion." It is this latter aspect of the situation that seems to be more or less neglected by the physician as well as by the endocrinologist.

There is practically no doubt that disturbances of secretion of endocrine glands should be listed among the phenomena of emotion and the evidence to this effect may be grouped in three main divisions. First: By analogy with the emotional effect on glandular and other secretions where this effect is easily observed and a matter of common knowledge as, for instance, the lachrymal gland, the salivary gland or the kidney. Second: Clinicians have repeatedly observed and recorded that phenomena that we commonly ascribe to secretion of certain ductless glands, such as menstruation and basal metabolism may be decidedly influenced by emotion. Third: The experimental evidence of Cannon and others that certain emotional states such as rage and fear in animals are accompanied by an increased amount in the blood of certain ductless gland secretions, notably adrenalin.

The experiments of Cannon offer the most direct evidence of a relation between ductless gland secretion and other phenomena of emotion but to me, their importance is increased by certain inferences that we may make that are of clinical value. The first of these is that the reaction of the gland, i. e., stimulation or inhibition is in the direction of greatest biological usefulness. That is to say, the direction is a fixed factor. The increased amount of adrenalin prepares the animal for fighting or for flight in the presence of danger. On the same basis, we would infer that a similar stimulus would probably inhibit ovarian secretion and also salivary secretion.

Another important clinical aspect of these experiments is connected with the so-called essential hypertension. In a recent review of the subject by Mosenthal (J. A. M. A. 91, 698) it is said that it is a disease of unknown etiology characterized by a persistent and increasing elevation of both systolic and diastolic blood pressure. This author says "the best available means at

the present moment to reduce the blood pressure in essential hypertension is to obtain nervous relaxation in the patient." The relation of the condition to emotional stress is also emphasized by others but without going further into the mechanism involved. It seems to me that this experimental work shows that there is injected constantly into the blood a blood pressure raising secretion during emotional stresses and this is the real cause of the hypertension. If the adrenal is inadequate to the situation, we arrive eventually at an adrenal exhaustion and a neurasthenoid condition with a relatively low blood pressure.

Practically every physician has noted the occurrence of cases of suppression of menstruation under emotional stress and has ascribed them to some disturbance in ovarian secretion. Two cases of this kind that I have seen illustrate important points in this connection. One was a girl of about 19 who began menstruating at 13 and menstruated normally for about two years. Then her mother died suddenly. She said that it was a great shock to her and menstruation stopped from then on. When examined she was found to be in apparently good general health. There were no signs of any disease of the nervous system and no evidence of any other endocrine disturbance. The gynecologist reported that the uterus was infantile but other gynecological findings were negative. While taking ovarian and pituitary extract she began having regular menstruation periods. She continued for about six months and then stopped taking it whereupon the periods also stopped. When she resumed she again had menstrual periods. The case seems to show that the effect of the emotion had persisted and would persist in spite of having normal periods for an interval of six months. No psychological analysis of this case was attempted. In a second case the patient was about 23 years' old. Menstruation began at 14 but stopped at about 16 following the death of her mother. This patient was in fairly

* Read before the Section on Medicine, M. S. M. S. at the Annual Meeting, Detroit, September 27, 1928.

* Dr. Camp was graduated from the Medical School of the University of Pennsylvania, Philadelphia, in 1902. From 1904 to 1907 he engaged in general practice in Philadelphia, was visiting physician in neurology at the Philadelphia General, University and Philadelphia Polyclinic Hospitals and instructor in neuropathology at the University of Pennsylvania. Since 1907 he has been professor of neurology at the University of Michigan, Ann Arbor, and in charge of the neurology clinic at the University Hospital. His private practice is limited to nervous and mental diseases.

good general health with no organic nervous disease and no other endocrine disorder. The gynecologic examination was negative except for a vaginismus. In this case a psychoanalysis was made but no endocrine therapy was given. Although her mental conflict began with her mother's death it by no means ended there and the effect persisted. The result in this case was that the patient began to menstruate and has since continued to do so. One might infer that in this case an inhibitory effect had been removed.

Many authors have called attention to the importance of emotional factors in the cause of Grave's disease but without following up the idea when discussing the pathology or therapeutics. The best surgeons in dealing with these patients take elaborate precautions to avoid emotional stress connected with their operations but nevertheless they operate presumably on the theory that no matter what may have been the cause, the only effective treatment is the removal or rendering functionless of a part of the gland. This may be true in some cases, especially those of long standing, but I am convinced that in some cases that I have seen with all the symptoms of Grave's disease, including increased basal metabolism and other laboratory findings, the condition has been completely and permanently relieved by the relief of some repressed mental conflict (Vide, Newburgh and Camp). In addition to these full blown cases, so to speak, I have seen a considerable number of patients who have had many of the symptoms of Grave's disease associated with other symptoms of emotional origin, who were relieved by psychotherapeutic measures.

If we study the effect of emotion on other glands we note at once that there is considerable individual variation. One person sheds tears readily and copiously, another rarely, if at all. It seems to me quite correct to suppose that similar individual variations occur in connection with the endocrine glands and that under equal emotional stress one person might develop a hyperthyroidism, whereas another would not. In connection with these individual variations we must also consider the effects of "conditioning" in the Pavlov sense. This factor of conditioning would have a still greater influence in creating the emotional substrate—the conflict of ideas. I am highly critical of certain studies concerning the effects of emotion that ignore this factor. In one instance, the investigator measured the basal metabolism in individuals about to have surgical operations

and found that in some cases it was increased but not so in others. He, therefore, inferred that basal metabolism was not regularly increased by fear. He assumed that all of his patients feared the operation. Such an assumption is certainly not justified. I admit that I would fear an operation but I can easily imagine that if I were seriously ill I would welcome it gladly with the hope of a cure. One is reminded of the seasick passenger who at first feared that the ship would sink—later, he was afraid it wouldn't.

One of the big difficulties of our problem is in understanding what is really meant when we speak of emotion. Frequently the word is used in the same sense as feeling. If we wish to make scientific progress we must have an accurate definite and I suggest that the best one is that given by Janet—"When the organism appreciates the necessity for adapting itself to an environment and at the same time perceives that it cannot adapt itself, then there results a series of phenomena that taken collectively we speak of as an emotion." A shorter definition with the same meaning would be:—The mental and physical phenomena accompanying a conflict of ideas. Since ideas are necessary, we find emotional disturbances more frequently in educated individuals. Such mental conflicts are intensely disagreeable to the consciousness of the individual and his natural tendency as well as the advice of his friends and it may be also his physician, is to put it out of his mind. In so doing he thrusts it from consciousness but if there is a real necessity for an adaptation, merely refusing to remain aware of it does not alter its effects. He then has what we may properly call an anxiety neurosis in that he has the phenomena of anxiety or fear without being aware of their origin. Under such circumstances anxiety phenomena may last indefinitely. Such patients will say and correctly that, so far as they are aware, they have no worry or fear. It is only after the patient has been psychologically analyzed that one can trace the connection between the mental conflict and the symptoms, and it is only then that one has a chance to help the patient to resolve his conflict.

In summary, the points that I wish to emphasize are:

Emotion, scientifically considered, is a series of mental and physical phenomena, the result of a conflict of ideas. Such conflicts occur only when the organism is not adapted or adaptable to its environment and appreciates this fact.

Among the phenomena observed are

changes in glandular secretions, especially the ductless glands.

Emotion stimulates secretion in some glands and inhibits it in others. The direction of the effect is, normally, a constant one in man and the same findings apply to animals.

The quantitative effect of emotion on secretion differs widely in different individuals and is also different in animals. This is most likely due to congenital peculiarities of the individual and is not due to difference in the cause of the emotion.

We have no reliable method of measuring the intensity of emotion. Experi-

mental situations designed to test emotional response give unreliable results because they cannot allow for variations in the training of individuals.

Emotional affects persist because of the persistence of the mental conflict even though the patient is not aware of it and will deny its existence until he is reminded.

The presence of these subconscious mental conflicts explains the persistent disturbance of endocrine secretion of emotional origin. Such disturbances may last indefinitely and may be the cause of secondary pathologic changes in other organs.

ENDOCRINOLOGY AS A BRANCH OF INTERNAL MEDICINE*

CARLETON J. MARINUS, M. Sc., M. D.
DETROIT, MICHIGAN

Whenever anyone is following a new trail through the wilderness it is advisable to stop occasionally, look at the sun and other well known landmarks, and make certain that he is actually making progress and not wandering in circles. This seems to be an opportune time for such a pause. If we admit that endocrinology is a branch of internal medicine we should be able to apply the same principles of investigation, and the same mode of thinking to the new subject. A great deal of work in the past has been wasted because of the failure to follow these principles.

In the early days when these collections of glandular cells without obvious outlets into the rest of the body were first shown to have important physiological functions, it seemed only proper to attempt to use the dried glands or various extracts of them to relieve human ills. The manufacturing chemists were more than willing to supply the material to use. In a short time there were available hundreds of glandular preparations, each of which was pushed by energetic salesmen or detail men with astonishing accounts of the results to be expected from their use. The indications for using them covered every disease known to medical men, from pneumonia to cancer. Then the commercial possibilities of "pluri-glandular" therapy were discovered and it became possible to buy mixtures of all or any of the glands in any proportion desired.

The idea of a deficient activity of one of these little known bodies as a cause of illness and the hope of relieving the illness by feeding the gland at fault is a peculiarly enticing one. A wave of interest in glandular

treatment swept over the medical world and I venture to say that every doctor who was practicing at that time had his fling at glandular therapy.

The results on the whole were extremely disappointing. When the factors of suggestion and of the natural tendency of the body to recovery were eliminated it became apparent to thoughtful men that the treatment had been worthless. There was an occasional case in which, however, there was unmistakable evidence of benefit from glandular treatment.

Let us try to analyze this period in endocrine thought and determine, if possible, the factors of importance. To do this properly we must think in terms of internal medicine and consider the problem as any other medical problem. In general the study of a newly discovered medical disease starts with the collection of a series of sick individuals presenting certain similar symptoms or physical signs. Some of these die or are operated upon and the pathologist has an opportunity to describe changes in structure of the parts involved. The physiologist, the bacteriologist, the chemist are called into consultation, and a complete story of the etiology, abnormal physiology, defense mechanisms, course of the disease is built up. The clinician, with this new information at

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* Dr. Marinus is a graduate (M. Sc.) of Syracuse University 1917, and M. D. University of Michigan School 1921. He was medical house officer, Peter Bent Brigham Hospital, Boston Mass. 1921-23; general practice, Detroit, 1923-24 confining his attention to endocrinology from 1924 to date. He is junior attending physician to Harper Hospital O. P. D. and the Receiving Hospital, also assistant professor research medicine, Detroit College of Medicine.

hand, is able to recognize the disease in its earlier and less severe forms. He comes to recognize diagnostic signs and symptoms which were not previously known to be associated with this condition. Finally, and as the last link in the chain of knowledge, the rational therapy is brought forward and applied to the disease. The story of diabetes mellitus is an example of this sort of medical research. You will note that in the early days of endocrinology the process was exactly reversed. We started with a new method of therapeutics and tried it on everything we did not understand in the hope that it might do some good.

A second cause of failure lay in the materials used. In internal medicine any drug, to be acceptable, must produce a certain physiological reaction if given in adequate dosage. The clinical dose is that amount which will produce the physiological effect desired. Less than that amount cannot be expected to benefit the patient. This same criterion should be applied to endocrine therapy, but was it? No. We were advised by the manufacturing chemist that five grains of ovarian substance should be used, or that one-tenth grain of parathyroid substance should be used. Why? Probably because there was a large available supply of ovaries, but parathyroids were hard to find. No one had any conception of the amount of any gland substance necessary to produce a physiologic effect, nor, indeed, did anyone have any idea as to the physiologic effect to be expected. Is it any wonder that endocrinology fell into disrepute? Or that anyone admitting the use of glandular products was considered on a level with the chiropractor?

Good internal medicine demands first and foremost a diagnosis. This is arrived at by a consideration of the symptoms of the present illness, the past and family history, the physical signs, and the pertinent laboratory work. It may be possible to make a tentative diagnosis without this complete program, but only when the disease is so thoroughly understood that certain features have been found to be pathognomonic. How much more important is it to completely study a case in a new field, involving dysfunction in structures concerning which we have so much to learn?

But what was our procedure? We treated symptoms. If a woman did not menstruate, we gave her ovarian substance. If she menstruated—fine. If she

did not—glandular therapy was the bunk. If the blood pressure was low we gave suprarenal treatment. When the pressure did not rise we said that suprarenal treatment was useless. But the Mayo clinic has shown that in proven cases of Addison's disease sufficiently large doses of suprarenal substance are effective, although it is obviously impossible to check the tuberculosis which is destroying the gland.

I wish to emphasize the importance of physical signs. No one would consider that he were justified in treating heart disease without examination. The recognition of the dyspnea, edema, venous engorgement, of heart failure, is part of the physical examination, although these signs are often so obvious that we recognize them without conscious effort. But do we look for physical signs when we consider an endocrine problem? Do endocrine cases have physical signs? Are they definite? Is it possible to make a diagnosis on physical signs alone? Does the presence of certain signs always accompany certain symptoms? What are the physical signs of ovarian deficiency, for instance? In modern medicine we frequently turn to the laboratory or X-ray for assistance in making or confirmation of a diagnosis. In the beginning, laboratory data were frequently a source of error because of lack of knowledge of factors influencing the result. Indeed, it may be said that today if the laboratory and the clinical findings do not agree, the laboratory is probably wrong, for example in the Wassermann test. That does not lessen our use of the laboratory, however, but should stimulate us to determine the reason for the errors.

In recent years laboratory studies have rightly come to play an increasingly important part in endocrine diagnosis. As each new test has been discovered it has been found that no one of them is absolutely diagnostic. Even the basal metabolism test may be misleading, as shown by Cushing in his studies of pituitary disturbance. As time goes on, however, we will learn more concerning the interpretation of abnormal laboratory findings and will be able to apply this knowledge to endocrine diagnosis.

For the purpose of my own study I have laid down certain principles which I believe apply just as certainly to endocrinology as they do to internal medicine as a whole. They are:

1. Any deficiency or excess of function of a given gland will produce physical changes if of sufficient severity and duration.
2. The frequent occurrence of a certain symp-

tom in conjunction with physical changes known to be due to dysfunction of a certain gland is presumptive evidence of a causal relationship.

3. The regular relief of such symptoms by treatment with that gland is presumptive evidence of the correctness of the diagnosis and of the potency of the preparation used.

4. Alteration of the observed physical changes by continued treatment is absolute evidence of the above.

5. Any potent endocrine product must be capable of producing a certain characteristic physiologic effect when given to a normal person in adequate dosage.

6. An increased tolerance to a certain gland product is presumptive evidence of a deficiency in that gland. If the use of this product is followed by relief of symptoms the evidence is absolute.

7. The proper therapeutic dose of any gland product is the amount necessary to produce its characteristic effect in the given patient.

8. The return of a patient's tolerance to a certain gland product to normal is evidence of a return to normal of the function of that gland.

LINES OF INVESTIGATION

Having looked over our back trail, let us look forward. There are three lines of investigation that seem most important at this time. First, we need more potent materials with which to work. Our knowledge of thyroid disturbance has outstripped that of the other glands. Why? Because the active principle of the thyroid is relatively stable, is usually absorbed when given by mouth, and has been available to use for years in active form. We have had the privilege of using this material as a therapeutic test in doubtful cases and that alone has tremendously increased our knowledge, particularly of minor insufficiencies. Within the last few years we have been given a potent parathyroid extract, one of the ovarian hormones in a quantitatively standardized solution, two separate hormones from the posterior lobes of the pituitary gland, and insulin. With the discovery of each of these a new field for investigation and for therapy has been opened.

We need more potent materials for use by mouth. At present there are two methods of dessication in general use. The first is the use of a solvent which takes out both water and lipoids. Unfortunately, this method, while giving an excellent product from the pharmaceutical standpoint, effectually removes the activity from most of the glands. The other method is the dessication of the ground gland by vacuum or by moving warm air. This method is unsatisfactory, however, because an oily film is formed over the surface of the material which so interferes with evaporation that autolysis and bacterial action materially decrease the potency of the fin-

ished product. I have been using a method of dessication which permits of the rapid drying of the ground material without the loss of lipoids. This material in my hands has given definite evidence of potency in reasonable doses.

LABORATORY STUDY

The second field for investigation is in the laboratory study of these cases. In the past it has been difficult to interpret properly the findings obtained because of our inability to make a definite endocrine diagnosis. With added knowledge we expect to be able to use the laboratory more frequently and more effectually.

CLINICAL INVESTIGATION

The third and most important field for study is in the realm of the clinician. Contrary to the general opinion endocrine cases are not rare. I will admit that the severe disturbances are uncommon. We do not often see Acromegaly, Addison's disease, severe myxedema, etc. But lesser degrees of endocrine disturbance are common, and are usually not recognized. I venture to say that a majority of the patients who have been going from one doctor to another for years without even reaching the dignity of a diagnosis except perhaps a neurosis, have an endocrine disturbance. I believe that today it is possible to correctly diagnose the great majority of these cases. I know that symptomatic relief is possible in a high percentage of cases seen. The clinician has an opportunity not only to give relief to the particular patient, but also to increase our knowledge of the frequency, symptomatology, physical signs, and therapy of these conditions. He will succeed in doing so only when he adopts a method of study which will enable him to make a definite diagnosis, and a method of treatment which will supply to the patient an adequate amount of a potent product.

Case 1—Miss E. F., age 34. Complaint, headache. Present illness—For two years following a severe vaccinal reaction the patient has had frequent attacks of agonizing hemicrania, disturbances in vision, frequent "head colds", and a gain of 40 pounds in weight. Correction of a refractive error and treatment of an infected sinus had not relieved the symptoms. The menses became very short and scant and the patient noted an increase of the nasal discharge and headache preceding this event. Sensitization tests showed an allergic reaction to bacteria, but vaccine therapy gave no relief. Her strength and endurance have progressively decreased.

Past History—Patient was thin and frail during girlhood, but no organic disease was ever found. Menses began at fifteen. One sister has hay fever.

Examination—The patient is 60½ inches tall, with small hands and feet. The skeleton is uniformly delicate and frail. The facies appear much younger than the patient's age. The breasts are poorly developed. The eyebrows are thin, scalp hair thin, lifeless, excessively oily. There is a moderate excess of downy hair over the cheeks and upper lip. There is a moderate obesity (weight 154, calculated normal 118), localized over the deltoids, abdomen, buttocks, and cervical regions.

Special Examinations—The urine was normal, the blood normal except for a relative lymphocytosis, the basal rate was minus 11, per cent, the visual fields showed a moderate symmetrical contraction of both form fields. The color fields were reduced to about one-half of normal. X-ray of the skull showed poor bony development and a small sella turcica, but no evidence of erosion.

Diagnosis—Long standing anterior lobe pituitary insufficiency with more recent posterior lobe failure. Vasomotor rhinitis. Chronic maxillary sinusitis.

Course and Treatment—The patient was given 15 grains of whole pituitary substance daily, by mouth. There was immediate relief of the headache and nasal discharge. In the course of a few weeks the patient noted a definite increase in energy and ambition and the return of her sense of well being. Her vision improved and there was a gradual loss of weight from the areas of excess. The menstrual flow did not increase. As a therapeutic test the patient was given, without her knowledge, a pituitary preparation known to be lacking in activity, with a return of all the previous symptoms.

At present the patient weighs 115 pounds, feels well except for mild headache and lassitude before the menstrual period. She continues to take 15 grains of pituitary substance as she has found that the headaches recur if the dose is reduced. The visual fields are now entirely normal.

Comment—This case illustrates our ability to relieve the symptoms in a case of pituitary insufficiency, without evidence of any increased function by the gland itself.

Case 2—Miss D. B., age 30. **Complaint**—Sense of pressure in the throat, fatigue.

Present Illness—Two years ago, following a period of excessive emotional stress, the patient noted the frequent periodic occurrence of a sense of constriction in the throat, associated with flushing, sense of anxiety, numbness and coldness of the extremities, irritability, and depression. A partial thyroidectomy was done three months later with the removal of "multiple small colloid adenomata." A basal metabolism test was not done.

Past History—Patient enjoyed average health during girlhood. At thirteen years there was a period of excessive growth followed by the onset of menstruation at fifteen. Periods were irregular with an interval of six to eight weeks, profuse and painful until the age of twenty-one, when they became regular but very scant. She has always been emotionally unstable, easily depressed, and irritable, particularly before the menstrual period.

Examination—The patient presents a typical eunuchoid build, 69½ inches in height, with marked excess in the length of the long bones. The shoulders are narrow, waist narrow, hips broad, masculine type of muscular development. Breasts are very flat. There is no excess fat. The under jaw is short, the teeth show excessive decay. The thyroid cannot be felt.

Special Examination—The temperature is 97, blood pressure 116/80, pulse 64, R. B. C. 3,750,000, hgb 70%, B. M. R., minus 16%. Urine normal.

Diagnosis—Long standing hypogonadism. Post-operative thyroid insufficiency.

Course and Treatment—The patient was given sufficient thyroid extract to bring her basal metabolism to normal. The fatigability was partially relieved, but sense of constriction in the throat, depression, and emotional distress were aggravated. The patient was then given 20 grains of whole ovary by mouth in addition to the thyroid with the complete relief of all symptoms. The quantity of menstrual flow has practically doubled.

Comment—A thyroidectomy was done for relief of the symptoms of hypogonadism with the addition of hypothyroidism to the previous picture. Thyroid therapy alone did not relieve the symptoms, but combined therapy has afforded symptomatic relief.

Case 3—Mrs. B. H., age 37.

Complaint—Dizziness.

Present Illness—During her first pregnancy three years ago the patient developed the classic preeclamptic syndrome, terminated by caesarean section. The pregnancy had been characterized by continuous vomiting. After the section there developed dizziness, nervousness, tachycardia of moderate degree lasting three months. Then followed a marked gain in weight. A second pregnancy, with similar symptoms, was also terminated by section nine months ago. The previous symptoms of dizziness, nervousness and tachycardia were again noted, but in much more severe form. Any sudden movement, or lying on right side produced extreme dizziness associated with nausea. Marked excess of fat about the shoulders, bust, abdomen and buttocks appeared.

Past History—The patient's mother had had eclamptic convulsions with each pregnancy. Late in life she had developed typical acromeglic changes in the appearance of her face and hands. The patient had always been small and delicate in body structure until tonsillectomy 11 years ago, at which time she began to gain in weight and develop more mature proportions. Menses began at 11½, 30 day interval, 7 days duration, no symptoms.

Examination—The pulse ranged from 90 to 125. The blood pressure averaged 160/90. The hands were warm, moist, and fine rapid tremor was present. The face was flushed. The thyroid gland was slightly enlarged, firm, not pulsating (Lugols' solution had been used).

Special Examination—X-ray of the sella turcica showed definite enlargement and erosion. The basal metabolism had been x 43 and x 32 before and after taking Lugols' solution.

Diagnosis—Inherited Pituitary disease, overactive anterior lobe, under active posterior lobe. ? Neoplasm. Eclampsia probably on a pituitary basis.

Course and Treatment—The patient was unable to take anterior lobe substance as two grains aggravated the symptoms. She tolerated 20 minims of surgical pituitrin, with immediate relief of the dizziness. After 20 injections, given every second day, her tolerance had fallen to six minims and the symptoms had entirely abated. No change occurred in the fat distribution. Symptoms have not recurred.

Comment—The occurrence of eclampsia with each pregnancy in a mother and daughter, both of whom present objective evidence of pituitary abnormality, is suggestive of an etiological re-

lationship. The fall of tolerance to pituitrin parallel to the relief of symptoms, is evidence of a return to normal of the function of the posterior lobe.

Case 4—Mrs. G. C., age 53.

Complaint—Weakness and swelling of the feet.

Present Illness—Fifteen years ago the patient noticed gain of weight, swelling of the lower legs, lack of strength and endurance, and increasing fatigue. She was told she had "kidney trouble" and was given digitalis in small doses. Her condition gradually failed until for the past year she had been practically bedridden. There has been marked loss of memory and mental activity, excessive drowsiness, attacks of partial blindness, and increasing swelling of the face, hands, and dependent parts. Dyspnea has been increasingly severe.

Past History—No data of importance.

Examination—Patient is in extreme distress from dyspnea. There is extreme pitting edema extending to the mid thighs. The hands are swollen to twice normal size. The face is puffy, the eyes nearly closed. Extreme pallor of the mucus membranes. Hair dry and very thin. Skin dry and eczematous. Left border of the heart in the anterior axillary line, sounds of very poor quality.

Special Examination—R. B. C., 1,180,000; Hgb., 33%; N. P. N., .032 mg.; Glucose, .095 mg.; B. M. R., minus 37%; Urine, normal; P.S.p., 18% in two hours 10 min., Temp., 95; Pulse, 100; B. P. 84/60.

Diagnosis—Severe myxedema with secondary myocardial and kidney failure.

Course and Treatment—No change followed the administration of six grains of Thyroid extract for a period of two weeks. Patient was given the calculated dose of thyroxin by mouth with spectacular results. In 19 days there was a loss of 42 pounds (diuresis), and increase of 880,000 in the red count. The P. S. P. excretion rose to 40%, pulse fell to 90, B. P. rose to 110/60, temperature to 98.7, and B. M. R. to $\times 4\%$. Two months later the red count was $2\frac{1}{4}$ million, the B. M. R. $\times 5\%$. The patient was then changed to thyroid extract, requiring 5 grains daily. Three months later $2\frac{1}{2}$ grains held the metabolism normal. One year later $1\frac{1}{2}$ grains was sufficient, and the patient is now in balance with one grain of thyroid daily. The heart borders have returned to normal limits, her strength and endurance are excellent and she considers herself well.

Comment—A severe myxedema gave the appearance of terminal stages of a nephrosis. Treatment with adequate amount of thyroid extract restored kidney function, red blood cells, heart muscle, etc., to normal. Continued treatment has resulted in an improvement in the function of the patient's thyroid gland as shown by progressive decrease in amount of thyroid substance necessary to hold her in balance.

NOTE: Dr. Richard McKean's paper on "Hypothyroidism Without Myxoedema; Its Recognition and Treatment," belongs to this symposium. It will be found on page 128 of this number of the Journal M. S. M. S. It was received too late for insertion in its proper sequence but should be read before the discussions which here follow.—Editor.

DISCUSSION

Dr. W. H. Marshall (Flint): This has been a most enjoyable symposium. It is a very difficult

subject. So many factors seem to enter into this field of endocrinology. In recent years, most physicians have been stressing a constitutional factor. Many of the speakers this morning have mentioned that. There is no question but that there are probably people who are doomed to have these disfunctions from the day they are born. Then, we realize the importance of certain dietary conditions. We, in Michigan, have realized what deficiency of iodine means. I wonder if we realize what vitamin deficiencies mean. Dr. McKean mentions that these cases of his had dental caries. In a recent study at the Mayo Clinics, they showed that dental caries is very commonly associated with a low calcium diet plus vitamin "D" deficiency. I think in our routine studies of these patients we probably pay no attention to the character of diet the patients are getting. We have girls in most of our cities who lunch on a sandwich or a malted milk, a very deficient diet from the standpoint of vitamins. I wonder if, in the future, we won't study those factors a bit.

Then, I am entirely in accord with all that our wise friend, Dr. Camp, has said about the psychic factors. One of the most violent cases of hyperthyroidism that I ever saw was in a nurse who, upon a visit to her home in a distant city, found that her father and mother were having certain domestic difficulties. She immediately came home and went into a violent hyperthyroid state that was only relieved by adjustment of the initial emotional conflict. I have seen many of those and I am heartily in accord with all that Dr. Camp says.

Dr. Hugo A. Freund (Detroit): Mr. Chairman, I was struck in Dr. McKean's paper by the age limits he placed on his hyperthyroid groups. I think it is a very interesting factor that we often see the hyperthyroid state develop in the young individual, 18, 19 and 20 years of age. I think, in a way, we can account for that. A good many of these young individuals when they pass the puberty age and there has been an increased call on the thyroid mechanism for increased amount of thyroid activity soon after that go into a stage of depression, that is, the thyroid itself goes into a period of depression. During that particular period, we are very likely to find girls of low mentality, getting unusually stout, developing an onomania, and many other symptoms of which the doctor spoke.

There comes another period of life, that of the climacteric (women, too, just before the cessation of menses), when there is a call on the thyroid. Then, the reverse takes place and a depression state ensues.

There is another condition that we see in which hypothyroidism develops in the presence of goiter. Some call it dis-thyroidism. After all, it is the high hyperthyroid state that is more potent and manifest in the individual who may have had a mild thyroid throughout his middle life, an enlargement of the thyroid, not so much due to physical enlargement of the glands, but to profuse adenomatous areas in the thyroid, and adenoma is really a tumor formation. As that continues to grow fiber changes take place in the glands. The thyroid outgrows the thyroid nodule itself with the depression of the actual thyroid secretory substance. In other words, the adenomatous growth does not secrete and give the normal substance the body needs, and may be filled with hemorrhagic substance, and may, indeed, be fibrous. an dour individuals, despite the fact that

they have large thyroid glands, develop hypothyroidism.

I was very much interested in Dr. Camp's stressing the emotional states as producing hypothyroidism. I believe in an analysis of over 3,000 cases made by Bram of Philadelphia somewhat over a year ago (I think the article appeared in "Endocrinology") it was shown that over 60 per cent began with the psychic coma of some type, such things as an automobile accident, emotional conflicts in the home, sudden frights, and so on, developing a definite hypothyroidism.

I believe Dr. Camp mentioned or brought out in his paper the fact that in some emotional stress one may see a hyperthyroid state develop, and in others it does not develop at all. In a way, I think we must look to the physical side of the condition. In other words, I do not believe we are going to get a definite hypothyroidism in an individual who is not apt to predisposition of hyperplasia of the glands. I think he must have a predisposition to the thyroid hyperplasias before you can expect a sudden change to produce a so-called hyperthyroid state. In other words, I believe we see emotional stress producing hyperthyroidism in areas of goiter and in the goiter-free areas, I do not think we see that as frequently.

That has been pretty well gone over by Heitzig and Mitchell, the German investigators, who investigated cases in the mountainous regions in the south and compared to causes they saw in the plains of Germany where they found it was much more common to see the hyperthyroid state develop where there was a previous disposition to thyroid than in the lower districts where it did not exist.

There is one little thing on which I can't help but take issue unless I misunderstand Dr. Camp's paper, namely, the effect of emotional states on hypertension. Dr. Camp used the word essential hypertension. I believe we must distinguish between those cases in which there is a very pronounced and definite psychic condition of some kind of anemic psychosis. In those cases, we do see variations of blood pressure occur. In other words I have seen, not infrequently, in cases of anemic depressive psychosis during the anemic stage patients with immense hypertension, and then during a period of quiet, the hypertension would entirely disappear and the patient would be entirely normal.

I think we must separate those cases from the so-called cases of hyperpiesis in which there is a hypothetic change in the vessels themselves, in which a fibrosis has taken place in the smaller vessels and the essential points of hyperpiesis, namely, that of intense fibrous changes occurring.

Those cases, I do not believe show very marked changes at least. They may be slight during the emotional states. That is particularly seen in cases of malignant hypertension which are essentially all primary hyperpietic states in which there is a marked general fibrosis of the arteries and vessels where neither intense emotional excitement nor anything else make any difference on the vascular tension. (Applause).

Dr. M. S. Chambers (Flint): I have been very interested in these papers this morning. I presume I am probably more interested in Dr. McKean's paper in that I have been interested in this group of cases in the past year. I think probably they are very, very common, and they are missed a great deal among various clinicians. They go the rounds of the doctors in their localities and, as

a rule, they are classified as neurasthenics or psychoneurotics.

I believe one of the reasons they are so commonly missed is that there is a great scarcity of literature on this subject, probably because these cases do not go to the hospital and therefore are not reported in the literature so commonly as they would be if they were hospitalized. I think it is high time we paid more attention to some of these so-called minor complaints that we see in our offices rather than always leaving it to the hospital as the place to study these cases.

I was very much interested in the symptoms that Dr. McKean has noted in these cases. I have found the same in the few cases that I have seen during the past year. I think one of the outstanding complaints is their lack of stability. They complain of very marked weakness, both physical and mental. It is very common for them to tell their doctor that they will read a newspaper article through and then be unable to remember what they have read. The same is true with some backward children in school. Occasionally, children who come from very intelligent families do not do well in school, and if you were to go over them carefully, check up their basal rates, and so on, you would find that they are underactive.

It has been a striking thing to me to observe the weight of these patients. We have been so accustomed to considering hypothyroid patients as being myxedemas that we almost expect, if our patient is not overweight, that he is not hypothyroid.

While I haven't checked up my cases recently, I believe that most of my cases are of normal weights and some of them are quite thin people, somewhat below normal.

The marked cold intolerance is a very prominent symptom. They will tell you that they need more bed clothing, that they have to have the house warmer than the rest of the family, and so on. Usually they do not perspire freely. There are some of these cases that clinically are so nervous and easily excited that they look almost like hyperthyroids. In fact, I have had some cases in which I thought maybe they might be hyperthyroid in the early stage in which I find the basal rates are considerably below normal. I think it is very hard to tell a real early hyperthyroid from a hypothyroid.

The physical sides which seem to be the most outstanding are dry hair, dry skin, occasionally to the point even of scaling, with chapping of the fingers, at times breaking open, so they become very sore, the nails breaking off easily. They are brittle and snap when you press on the ends of them. Often the eyebrows show some scarcity of hair, especially in the lateral end of the eyebrow. I have found the hair quite thin in the lateral half of the eyebrow in several cases.

Another thing I have noticed in the treatment of these cases is that after a period of time the thyroid dosage has to be increased. It seems to me that after they take it over a period of months, that possibly there is some decrease in the thyroid gland in the patient, that is, in the activity of the thyroid gland in the patient, so that the dosage of thyroid extract has to be increased from time to time.

I should like to ask Dr. McKean if he has had any result in the use of iodine administration in these cases. I, personally, have never tried it very much, only in a few cases, and in those I have not had any results and have had to go ahead and give them thyroid extract rather than iodine.

Dr. Merrill Wells (Grand Rapids): Mr. Chairman, without presuming to discuss in detail the Chairman's paper, one point he mentioned in speaking of the group of cases which he had regarded from a medical standpoint impressed me, which was the type of thyroid that he found in so many of those cases clinically, the soft, diffuse hyperplasia which had been noted.

I believe in carrying out the idea that was mentioned last year by Dr. Lewis and others who have controlled a good deal of the thyroid work by examination, etiologically, of the removed glands that we are getting to a simpler and simpler idea of the changes that occur in connection with certain of these thyroid cases, and that there may be a time when we will come to regard a large group of the cases now thought of as requiring entirely different types of treatment as merely different stages of thyroid dysfunction or thyroid progress through the years. As one writer has said recently, the age of the goiter and not the age of the patient may be of considerable importance to us in outlining our treatment. Perhaps there will be a swing backward from certain phases of radical treatment which we think now is absolutely essential.

In Dr. Marinus' discussion, it seems to me that there is brought to us again the idea of the thorough study of the individual and not a classification of the type of thing that we first think we see when we examine the patient in a routine way. In other words, the condition is especially associated with endocrine disturbance, such as temporary glycosurias or disturbed sugar metabolism which are not true diabetes, or temporary digestive disturbances which are not organic failures or deficiencies, sometimes not even hindering activities, if we take them in the light of a complete study of the individual, and find as near as we can (we can't always be 100 per cent in our estimation) by putting the two or three different types of disturbance in the individual together that we can iron out some of the wrinkles without doing radical things aimed at one phase, you might call it, in that connection.

From Dr. Camp's mention of the influence of the functional disturbances, I am reminded from some of our own work, how, frequently, on consultation with the neurologist we see not only endocrine things straighten out to a degree at least, but also especially gastro-intestinal and other disturbances associated particularly with spastic bowel, in sufficient elimination, and so forth, when these functional factors are further studied, and treated from the standpoint of relief of the conflict that he mentioned that has disturbed the individual for a period at least.

In Dr. McKean's paper one thought came to me in connection with these mildly hypothyroid patients. There is a group of patients who come to the internist and often do not see the skin specialist in a narrower field regarding such things as family tendencies in skin disturbances. Some of those patients, while a great many of them are in the hypothyroid class as Dr. McKean has said, show the dry skin and nails, and so forth. Another group which may not be showing this syndrome but show endocrine disturbance and are certainly exhibiting a large amount of the symptoms such as those Dr. McKean has listed, will show evidences of fat metabolism. They will come of a so-called liver family, and they will have various instances of fat disturbance, both in the digestive system and in the skin manifestations which it seems to me will cause some delay in this study of disturbed endocrine function, fully

as clearly as some of the things that we now are able to demarcate thoroughly. In other words, it seems to me that we are getting, by putting these ideas together from the neurological side, the nervous side, and the gastro-enteriological side, gradually closer and closer to a simpler idea of all these patients, and by team work we will accomplish more than we have previously on an individual appraisal of them.

Dr. S. Edward Sanderson (Detroit): It seems to me that we are approaching a much wider field. I cannot see how this subject can be approached except from several broad avenues. In the first place, constitutional background plays an important part. I think it is getting to be a bigger subject all the time. The older men knew of constitutional background and the younger men are learning it scientifically, and the average man in between is getting it. The constitutional background, in my mind, is like the different types of woods. I can't help but think offhand that we don't get these hypothyroids unless you have a constitutional tendency toward that sort of thing. It looks to me as though the subject resolves itself into a broad estimate of: First, constitutional background which includes heredity, metabolism of different types, and the endocrine values. The emotion of course comes right in on top of that. It seems to me in reviewing literature we owe a great deal to the neurologist.

I should like to ask Dr. McKean to speak of the pituitary side of hypothyroidism. It seems to me you cannot get away from the study of the pituitary. I think when these patients come in we shouldn't catalog them. We should study them first as a broad study, go down through, taking in the constitutional background. The constitutional background cannot be found without the study of certain things, for instance, pituitary. When we speak of endocrinology of the day, and we know it is a very deep and difficult subject, and a very tricky subject, how can you get your criteria? How can you balance your different endocrines?

We know the basal metabolic tests help us in evaluating the thyroid. How do we value the pituitary? We have ways of going about them. Amongst them is the study of the X-ray form which gives the pituitary, the bony architecture of the system as an indication of how the endocrines are balancing up.

I plead for a unified, broad, well-balanced study of the background that all our patients have. We have come to call it constitutional background. I have enjoyed the discussion.

Dr. C. J. Marinus (Detroit): This certainly has been a very interesting morning to me. It is always a pleasant sensation to find other people who agree with you. I want to speak particularly of Dr. Camp's paper. The thing that has puzzled me is what is first, the endocrine disturbance being the cause of the emotional disturbance, or the emotional disturbance being the cause of the endocrine disturbance. My own feeling about it has been that when we have outstanding physical signs of endocrine disturbance, we are justified in saying that the endocrine is the primary. When we have the same symptoms but with very little physical signs of endocrine disturbance, we should look for a neurological cause.

The cases which he presented have been duplicated in my work. I have even found cases in which I was unable to start menstruation with

endocrine therapy in which the proper correction of the emotional disturbance resulted in the resumption of normal menstruation.

Dr. Carl D. Camp: In regard to the case which Dr. Marinus has just brought up as to which comes first, I think that is a very interesting point. My own attitude is that the emotional disturbance may come first, so to speak, if we have a definite history that the patient has been well up until the time of this emotional shock and the symptoms occur after that. I think in such cases they may very well be accompanied by physical symptoms as well. On the other hand, I do believe if patients are having a disturbance of endocrine secretion, especially in the case of thyroid, that it is perhaps from some other cause, chronic infections, thyroiditis, or some other reason, so that they then become more sensitive to mental conflicts which, in turn, will perhaps increase the disturbance of the secretions. So we have a somewhat visual circle in that respect in those cases. The subject is a very large one and one which must be very brief, of course, in discussing the relations of the two, otherwise one could consume hours. Dr. McKean's presentation interested me especially. I see a large number of those cases, sent to me, I think, as cases of neurosis, psychoneurosis, on the basis of diagnosis by exclusion. I should emphasize the fact that personally I think such a diagnosis is always unjustified. There is a psychoneurosis of certain definite mental structure which makes it possible to diagnose them directly and not by exclusion. When I see such cases, I know that they are not cases of psychoneurosis, and several times, by exclusion in that way, I have fed such patients small doses of thyroid extract with sometimes excellent results.

There were two symptoms in connection with these cases which struck me especially as being interesting. They were called to my attention by Levy of Paris many years ago. One is the so-called thyroid rheumatism, vague arthritis, often diagnosed as rheumatism, sometimes as neuritis (very incorrectly), which improve very rapidly on small doses of thyroid. The other symptom which I think is rather interesting, especially to some of us at any rate, is the falling hair which is so commonly associated with mild degrees of hypothyroidism. Some of these cases, in fact most of them I have had, had a normal basal metabolic rate, and I have found that improvement would occur in these symptoms, at least, in spite of the fact that the basal metabolic rate was normal or approximately normal.

The remarks of Dr. Freund with reference to the constitutional peculiarities emphasized what I tried to bring out in my paper, but in these studies, each case must be studied individually. There is a strong constitutional factor, but we see the same thing in the secretion of other glands. There is a constitutional peculiarity, for instance, which leads one individual to shed tears very freely under any emotional stress, whereas another individual under the same stress would shed no tears at all. In one individual, blushing is a very common indication of his emotional state; another individual doesn't blush. Exactly the same factor applies to the endocrine glands, but if that individual is one who is susceptible to

change in his ductless secretion through emotion, then the emotion is, in fact, the cause of hypothyroidism.

So long as the emotion persists, although he may not be aware of it, he will continue to have these increased secretions of his thyroid gland.

On the point of essential hypertension, I think Dr. Freund and I do not disagree at all. It is simply a question of terminology. I used the term "essential hypertension" because I see it in the literature as descriptive of cases of high blood pressure without any other change. For instance, it is used by Rosenthal in a recent number of the Journal of the American Medical Association. If Dr. Freund would prefer, I could use the term "emotional hypertension." I avoid that term because it prejudices the case. On the other hand, I recognize that there are cases of hypertension no doubt due to arteriocalillary fibrosis, changes in the vessel wall, with which emotion has nothing to do. You may, if you please, use the term "essential hypertension" for those cases.

Dr. Richard M. McKean: I have very little to say. Dr. Chambers has brought up the subject of the use of mixed iodids in one form or another in this particular group of hypothyroid individuals. We have not tried it except in relatively few cases, and those cases are usually what present a peculiar syndrome. Strauss in Chicago has mentioned the possible use of the mixed group. They present symptoms, not only of hypothyroidism, but definite symptoms of hyperthyroidism. We have tried a few on thyroid with persistent tachycardia, persistent perspiration and tremor.

In spite of the fact that the basal metabolic rating is depressed and other signs show a hypothyroid side, we put them on the thyroid and subsequently add Lugol to control the symptoms on both sides. While those cases have been of recent development, one seems to show a definite improvement in the symptoms on the hyper side. I don't think the others warrant any conclusion. Those are the only cases in whom we have used iodine at all, except in the thyroid combination.

Doctors Freund and Sanderson spoke of the constitutional background. That brings to mind two families, one member of which came into the office and was proven to be among this particular hypothyroid group. Later on she sent in her sister who had symptoms similar to hers. She also turned out to be that type. Later, the brother was also sent in, and the same thing proved true. Two sisters and one brother were definitely proven to be hypothyroid and responded to thyroid therapy, showing there is apparently a definite factor in a family which makes them turn hypothyroid. While the precipitating factor may be the unusual iodine, salts or some other factor, still there seems to be a definite tendency in families to develop that particular thing.

Dr. Sanderson has spoken of the relation of the pituitary to the thyroid. I think that is a morning's discussion in itself. If we attempted to get into that, Dr. Marinus is more capable of discussing it than I. They exist in many occasions. As far as the roentgenologist's point of view is concerned, I think the pituitary side is still open to a whole lot of question, because it depends on so many factors. I don't think we will carry that any further just now.

THE DOCTOR'S LOG*

WILLIAM J. STAPLETON, Jr., M. D.
DETROIT, MICHIGAN

Probably there is no other way in which any one, and particularly a member of our profession, can secure complete relaxation equal to a sea voyage. Once on board a Trans-Atlantic liner one does not start at the sound of a telephone bell. If he is wise enough to leave the "Dr. or M. D." at home and to travel as plain John Brown, he is not even subjected to the tales of distress of his fellow passengers. Early in August the writer in company with his family left for a holiday in England. Our idea this time has been to travel intensively rather than extensively. We had resolved to see one comparatively small country and to see it well.

With this object in view we visited the English Speaking Union, an organization in old London, the purpose of which is simply the promotion of a feeling of rapprochement among English speaking peoples. Here we were provided with an automobile capable of accommodating four of us. After the necessary arrangements in the way of securing driver's permit and details of our itinerary, we set out by automobile, first in the direction of southern England.

Bright and early we left the ancient and always interesting London and found ourselves passing over the Hog's back for our first view of rural England. Lunch at Guilford in the Abbott's Kitchen, then on we went to Winchester and Salisbury, both places of historical interest. Near Salisbury we visited the ancient ruins of Stonehenge. Our route took us southward through the New Forest, of William the Conqueror's time. We passed through Dorchester, famous as the home of the late Thomas Hardy the novelist, as well as the location of Roman remains; then along the coast, Weymouth and the Island of Portland, the source of the famous marble; then on to Exeter with its cathedral; Torquay the famous seaside and yachting center, over Dartmoor to Princeton where frowns the great prison, Polperro, Penzance, Land's End, a glorious spot. St. Ives with memories of Stevenson, Tintagel which brings to mind King Arthur and his Knights of the Round Table, Clovelly the town of the street leading to the sea; Ilfracombe, Exmoor and its beautiful moors covered with English heather and gorse. We come to Glastonbury with its story of the Holy Grail, the birth place of Christianity in Britain, Wells a famous cathedral town, Cheddar famous for its cheese cave

and gorge, and on to Bath. Then in rapid succession we visit Bristol, Gloucester, to Tintern Abbey, made famous by Wordsworth's ode through the Wye Valley to Hereford. From here we drove into Wales visiting Llandudno, a famous spa town, Betty-y-coed, through the wild Vale of Llanberis past Snowden and on up the Straits of Menai where we crossed into Anglesey. Then by way of Chester with its Roman walls we drive to the Lake country with its memories of the poets and writers who lived there; next on to Greta Green, the famous runaway marriage spot where we entered Scotland.

SCOTLAND

"O Caledonia! stern and wild
Meet nurse for a poetic child!
Land of the brown heath and shaggy wood,
Land of the mountain and the flood."

The great poet of Scotland, Sir Walter Scott, sang the above in his "The Lay of the Last Minstrel." Scotland is surely a land of romance, of memories of heroic deeds and historic incidents, enchanting beauty and variety of scenery that makes it a paradise for tourists even if, as we experienced, it rains most of the time. On we go to Dumfries and Ayr to see where Burns lived, died and wrote his immortal verse. Now we come to "Glesca" town.

GLASGOW

The commercial capital of Scotland is chiefly interesting to medical men because of Lister and the epoch making work done at the Royal Infirmary where Lister practiced. His ward is no more. Why the ward was not left as a memento of his work we do not know. Of course it was out of date and in making improvements it was done away with.

"So fleet the works of men back to the earth again
Ancient and holy things fade like a dream."

If one wishes to see what this ward looked like he must go to London and visit the Burroughs-Welcome Medical History Museum* where one will see it recon-

* This is the third article by Dr. Stapleton which has appeared in the Journal M. S. M. S. during the past three or four years. Dr. Stapleton is a wide traveler. He has visited almost every country in Europe, as well as two or three in western Asia and Egypt, and other Mediterranean countries as well. Dr. Stapleton's descriptions are always interesting. The comment on the former "Logs" has been so favorable that the editor takes particular satisfaction in giving space to the present paper.—Editor.

* The equipment and instruments used by Lister were shown in Detroit at the American College of Surgeons, 1927.

structed together with a most complete collection of Lister's instruments.

The University of Glasgow has fine buildings and there is the cathedral, the art galleries, parks to attract the visitor besides the great ship-building plants along Clyde bank where many ocean liners are built.

So we leave Glasgow and go north through the Trossachs to Forth William, Oban and Inverness, the "capitol" of the highlands. In our little car we drove up the hills and over the heather clad highlands which in spite of the continual rain are glorious in their rugged grandeur, along the border of salmon streams in view of the shepherds with their sheep and great horned cattle. Then to Braemar where each year the highland games are held and then to Balmoral, the Scottish home of the Royal family.

Among the towns of Scotland none has a greater history than the old town St. Andrews, with its famous university. In these modern days St. Andrews seems to be better known as the home and arbiter in all things relating to golf. Here is the headquarters of the game which curiously enough was first played by the Dutch. The two chief courses are along the sea shore. Not being a golfer I can only say that the links with their hazzards and the strong wind blowing from the sea would be a place to tax the skill of any player.

The University of St. Andrews was founded in 1413 and is the oldest in Scotland. Among the famous men who went to school in this town were the Admiral Crichton, Andrew Lang and R. F. Murray. It was in the parish church that John Knox preached his first public sermon in 1547. Throughout the centuries St. Andrews was the ecclesiastical center of Scotland. One may see the ancient gateways and weathered walls of the churches; a charming old town which appeals to others though especially to the golfer.

To the medical man there is another shrine to visit. Here is the clinic of that "Master of the Heart" called "The Beloved Physician," Sir James MacKenzie. He was, as is well known, the family doctor who became the noted heart specialist. Yet in the heyday of his career in London he turned back to be the family physician again that he might round out his life work. This he did by going to St. Andrews. I visited the house facing the sea and only a short walk from the golf links where the James MacKenzie Institute for Clinical Research was established in October, 1919.

For a sympathetic story of his life, "The Beloved Physician," by R. MacNair Wilson is well worth reading. MacKenzie certainly exemplified in his life work the teaching of One who was first called by the name of "Great Physician." Through the courtesy of Dr. G. Matthias Fyfe who is the medical health officer of St. Andrews and attached to the Institute I was taken through the building. The equipment is of the simplest; the X-ray and clinical laboratories are good. The population of St. Andrews is a rather stationary one; people do not migrate so there is an opportunity to study the family as a whole. This is adequate reason why the Institute is located in this particular place.

Edinburgh, the next city to visit, is only an hour from Glasgow. Here Lister spent many years of his life. Here he met Syme with whom he worked and having married his daughter he became one of Syme's household. On Princes street is a monument to Sir James Young Simpson and at 53 Queen street is a house with this inscription, "Sir James Young Simpson lived in this from 1845-1870 and in 1847 discovered the anaesthetic form of chloroform." He it was, who, when assailed by the clergy for helping to relieve the pains of childbirth, replied by quoting from the Bible: Genesis 11, Verse 21—"And the Lord God caused a deep sleep to fall upon Adam, and he slept, and he took one of his ribs, and closed up the flesh thereof." This settled the controversy. It is said that Simpson violently attacked Lister's methods.

Sir Hector Cameron in his life of Lister says that Lister defended his treatment and took part in the battle unwillingly, for his gentle and reserved nature made anything of this sort repugnant to him. Edinburgh is one of the three or four cities which do not disappoint the visitor. Edinburgh is rich in its memories of war and peace, its art, literature, medicine, education and religion. Burns, Scott, Stevenson and others have cast the glamor of their lives about it and the spell is still there. The great University with its medical school and hospital with the roster of names famous the world round is still a Mecca for students. There is so much of interest that a mere catalog would fill pages. We left Edinburgh with regret and drove south through the Scott country visiting Melrose Abbey and coming to New-castle-in-Tyne. Then to Durham with its magnificent cathedral, Ripon and stop for the night at the famous Spa, Harrogate.

Before writing about Harrogate, mention should be made about "English Spas." The word usually brings to mind such places as Karlsbad, Marienbad or Vichy. The Englishman does not need to cross the Channel in order to obtain the benefits of the European resorts, as the same may be had in his own "tight little Island." Among the well known "Spas" of Britain are Bath, Harrogate, Buxton, Leamington, Llandrindod Wells, Strathpeffer, Cheltenham and others. In this article I will speak briefly of the two which impressed me the most.

"Oh! what avail the largest gifts of Heaven,
When drooping health and spirits go amiss,
How tasteless then whatever can be given
Health is the vital principle of bliss and
Exercise is health.

Then in life's goblet freely press
The leaves that give its bitterness;
Nor prize the healing waters less,
For in thy darkness and distress
New light and strength they give."

Over the entrance hall of the Royal Baths is the above quotation. Walking into the office of the General Manager, Mr. F. J. Broone, where I was most cordially received, after a short conversation relative to the waters, I was introduced to Mr. A. Woodmansey, M. Sc. analyst and scientific officer for the Harrogate Corporation. Under his guidance we visited the bathing establishment. In the laboratory daily tests are made of the many springs. We then walked about this delightful town. I found the hospitality of the British doctor without bounds. Every possible courtesy was shown the American medical visitor. Harrogate, the name probably goes back to "har" meaning hoary or grey, from the grey appearance of the deposited salts and sulphur surrounding the stronger springs. The waters of Harrogate vary in their chemical composition, saline sulphur, magnesia, saline hot springs, alkaline sulphur, pure chalybeate. Besides giving the regular baths they also give the peat or moor bath. The ferruginous peat of the neighboring moor is mixed, ground and used like a great poultice, applied well heated. It is said to have a definite therapeutic effect in various skin diseases, promotes absorption of effusions. It is said to favor muscular relaxation and to act as a general sedative to the nervous system.

Another interesting type is the paraffin wax bath. The limb is immersed in warm paraffin mixture where heat is desired for a long time. The average length of a cure is three weeks. The waters of Harrogate are so various that one may have laxative, aperient or purgative, diuretic or alternative action.

Bath, the "Premier Spa of the Empire," is a delightful little city full to the brim with things of interest to the medical visitor. Legend has it that an ancient British prince who had become afflicted with leprosy was driven from court. He wandered about and finally became a swine-



Land's End

herd. The swine contracted the disease, but attracted by the hot springs boiling from the earth, they wallowed in the steaming morass with the result that the leprosy disappeared. The prince followed their example and was cured. He returned home and became eventually king. Later he returned to the place of his cure, built palaces and temples and here founded his capitol. The first "City of the Hot Springs." Along about A. D. 54 the Romans erected magnificent baths and temples and named the city "Aqua Solis" which flourished for nearly four hundred years. When the Romans left Britain the baths and temples fell into ruin and the city was completely destroyed by the Saxons, A. D. 577. The Romans were almost modern in their ideas of bathing and plumbing. One has only to wander about the great Roman Bath to see this. In the 18th century due to the efforts of Beau Nash, Bath became the fashionable resort of all England. The city is a typical Georgian type with beautiful gardens, streets arranged in what are termed "crescents" such as the Royal Crescent, the Circus, Queen Square, and the Parade. All this is due to the celebrated architect, John Wood.

Our itinerary returning to London took us through Bedford, Oxford and Sulgrave Manor, the ancestral home of George Washington. The little town of Bedford is now fairly prominent as the home of the author of Pilgrim's progress. This year is the 300th anniversary of Bunyan's birth. The circular tour with wife and family took us over 2,500 miles of splendid English and Scottish roads.

MEDICAL LONDON

England, 1928, has been celebrating the anniversaries of two of her great medical men, Hunter and Harvey*; one the surgeon, the other the internist. The story of the life of each reads like a romance. If one visit the town of Folkstone on the southeastern coast he will find in the ancient church of Saint Mary and Eanswith the window presented to the memory of Harvey through the contributions of three thousand English doctors. Here Harvey was born in the year 1578.

Mention of John Hunter calls to mind the Hunterian Museum in the Royal College of Surgeons which is located at Lincoln's Inn-Fields. Hunter left a nucleus of about 30,000 specimens which number has been increased so that the Hunterian Museum is one of the richest anatomical museums in the world.

A visit to Chelsea is an interesting experience. Chelsea is on the Thames a short distance west of the British Parliament. It is the artists' London in the past frequented by such men as Whistler, Rossetti and Turner. Near here was the home of Carlyle. By the medical visitor Sir Hans Sloane, a former inhabitant, must not be overlooked. Sir Hans gave the Physic Garden to the Apothecaries Company "that apprentices and others may better distinguish good and useful plants from those that bear resemblance to them and yet are harmful." Sir Hans Sloane (1660-1753) was one of the great English physicians. He was founder of the Royal Society as well as the virtual founder of the British Museum.

On Harley Street and Winpole Street are located the offices of many members of the medical profession in London.

London has a society devoted to "constructive birth control and racial progress" which is presided over by a woman of much erudition but who is not a medical doctor. The official organ of the society is known as the "Birth Control News." Instruction is given by traveling nurses which resemble very much the visiting nurse of an American city.

THE BRITISH MEDICAL ASSOCIATION

The beautiful new building of the British Medical Association located on Tavistock Square was opened in 1925. It contains the "Great Hall" a library, members lounges and restaurant. It is needless to say that the British Medical Association is the Mecca for all information relative to

medical matters or post-graduate education so far as Great Britain is concerned. The Burroughs Wellcome Company deserve honorable mention for the facilities they have provided for the preservation of objects pertaining to medical history. The Burroughs Wellcome Museum was founded in 1913. While comparatively young it is made up of collections from all parts of the world. It has been adopted as the Museum



Stonehenge

of the "Section of History on Medicine," and forms part of the 17th international congress of medicine held in London in 1913. As an example of what the museum contains, we have the Hall of Primitive Medicine, showing primitive modes of treatment, primitive secret societies, ancestral culture and skull cults. The development of medicine is interestingly illustrated from primitive to modern times. I have already referred to the preservation of Lister's various instruments. This is probably the most complete institutional museum in the world devoted entirely to the history of medicine.

London hospitals carry an interest that is sometimes wanting in the newer and more up to date institutions in America. St. Thomas Hospital, London, was the home of the first nurses' training school in the world which was established by Florence Nightingale. Here one may see the original room as well as the various articles of nursing equipment of the woman whose innovation revolutionized not only hospitals but medical practice as well. For is not good nursing the handmaiden of good prescribing? The great hospitals of London

* Since the career of both Harvey and Hunter have appeared so recently in the Journal M. S. M. S. the writer will not go into further biographical detail.

are all so-called charitable institutions having no provision for private patients. Strange as it may seem the pay patient must be taken care of in private nursing homes.

Guy's hospital near London Bridge is located in the district so beloved by Dickens. It was founded in 1725 by Thomas Guy who, according to the inscription on his statue in the courtyard, was the soul founder. The 200th anniversary of the founding was observed in 1925. Thomas Guy is said to have acquired a huge fortune beginning as a book-seller and publisher producing and selling the Bible contrary to law. He likewise showed considerable business acumen by selling out before the failure of the South Sea Company, or the bursting of the South Sea Bubble as the incident used to be known in our school histories. Richard Bright of Bright's Disease fame and Thomas Addison, whose name was associated with a peculiar condition of the adrenals were associated with this hospital. Many others of almost equal note might be mentioned. The poet John Keats who was also a physician was trained here. Keats it will be remembered, died at an early age. It is said of him that he was addicted to mind-wandering instead of listening to his medical lectures.

"Oh! wherefore all this worrying circumstance?
Why linger at the yawning tomb so long?
O for the gentleness of old romance
The simple planning of a minstrel's song."

The Royal Hospital of St. Bartholomew "the mother hospital of the Empire," is said to have been founded 800 years ago near the priory Church of St. Bartholomew. The old church and hospital are within a few minutes of each other. What a story each could tell! Among the names of the men famous in the history of the old hospital may be mentioned John Mirfield, author of the first printed book in medicine, 1400 A. D.; William Cloves was surgeon of the Fleet that defeated the Spanish Armada. His writings are said to have been the best of the Elizabethian Age. Wil-

liam Harvey was connected with St. Bartholomew as was also Dr. Caius of Cambridge. John Abernethy was a teacher and helped to enlarge the library. Hogarth the painter was a governor and on the walls of the hospital are two large frescoes painted by him, "The Pool of Bethesda," and "The Good Samaritan." Robert Bridges the Poet Laureate who is also a physician, was a student here.

In conclusion, a paragraph or two on the so-called Panel system of practicing medicine which, as every one knows, is "state medicine" in operation to the extreme degree. This form of socialized medicine has prevailed to a large degree in England and one or two other countries since the war. The fact that it is not satisfactory is evidenced by the voluminous correspondence on the subject in the London Times and other periodicals. The physicians find it particularly irksome. Some complain of the clerical details; others of the haughty reaction of patients who look upon the doctor as their servant. Such a system or any modification of it should it ever prevail in the United States, would be a sorrowful situation both for the physician as well as the patient.

May I say that our experience in England last summer has given us a great deal of satisfaction. Never have we been treated more courteously; the English physician was most kind. Let us end with this extract from a Poem by E. V. Lucas.

"O England, country of my heart's desire,
Land of the hedgerow and the village spire,
Land of thatched cottages and murmuring bees,
And wayside inns where one may take his ease,
Of village green where cricket may be played,
And fat old spaniels sleeping in the shade—
Your daisied meadows and your grassy hills,
Your primrose banks, your parks, your tinkling
rills,
Your copses where the purple blue bells grow,
Your quiet lanes where lovers loiter so,
Your cottage-gardens with their wallflower's
scent,
Your swallows 'neath the eaves, your sweet content!
And 'mid the fleecy clouds, that o'er you spread,
Listen, the skylark singing overhead."

CONFERENCE AIMS AT WIPING OUT CAUSES OF BLINDNESS

Not merely preventing blindness, but wiping out its chief causes, is the aim of the three-day conference which was held in New York under the auspices of the National Society for the Prevention of Blindness. A material reduction in the amount of blindness in the United States within the next generation is confidently looked for, declared Lewis H. Carris, managing director of the Society. The progress in reducing blindness during the last 20 years and the research projects which are now under way give this high

aim a firm foundation, in Mr. Carris' opinion. A reduction of 64 per cent in 20 years from one cause of blindness, ophthalmia neonatorum or babies' sore eyes, has been made. Great progress has also been made in the study of trachoma, another widespread cause of blindness. Much of this is due to the work of the late Dr. Hideyo Noguchi.

Industrial physicians, physicians specializing in diseases of the eye, sight-saving class supervisors and public health nurses have gathered here for the conference.

MULTIPLE NEURITIS DUE TO FOCAL INFECTION*

CECIL CORLEY, M. D., F. A. C. P.**

JACKSON, MICHIGAN

Multiple neuritis, polyneuritis and peripheral neuritis are terms used synonymously to designate those cases "in which, as a result of a general cause—toxic, infectious, or metabolic—the symptoms present point to a more or less simultaneous affection of many of the peripheral nerves, or their associated peripheral neurons, as manifested by disturbance or abolition of their functions." (Stewart) This definition obviously does not include those changes in nerves due to mechanical means, such as wounds, pressure from any source, or abnormal traction.

The pathology in multiple neuritis varies widely, according to the duration and severity of the disease. Feiling states that the symptoms are the result of a degenerative rather than an inflammatory lesion. He describes changes in the medullary sheaths and in the axis cylinders which are degenerative in nature, while the neurilemma shows definite inflammatory changes. Natrass, however, reports the examination of several hundreds of serial sections of the great auricular and musculocutaneous nerves removed from a case of very acute and widespread multiple neuritis, involving the muscles of articulation and the facial muscles, in addition to those of the legs, arms, and trunk. Natrass' examination showed no degeneration, and only edema of the nerve sheath and slight vascular changes. It would seem therefore that a toxemia which later produces a profound degeneration, first alters or destroys the function of the nerve, before there is any degenerative process demonstrable by present histological methods.

Because of the wide variation as to location, severity and duration, neither the anatomical changes, nor the clinical signs and symptoms fall into any grouping, sufficiently characteristic to warrant a pathological or clinical classification. The classification most applicable therefore, is that based on the etiological factors. The varying distribution of symptoms in multiple neuritis suggested to the early writers that the disease was the result of some generalized intoxication. This hypothesis has been born out by more recent observation of the large series of cases definitely related etiologically to some toxin either endogenous or exogenous. Neuritis might be classified etiologically then as due to:

1. Chemical poisons—Alcohol, lead, arsenic, etc.
2. Acute bacterial infection — Diph-

theria, influenza, scarlet fever, puerperal sepsis.

3. Conditions of altered metabolism and malnutrition—Diabetes, tuberculosis, cancer, starvation, beri beri. (Whether these diseases produce neuritis because of a toxin of their own, or because of an increase in the vulnerability of the nerves to toxins of some other source, is unknown.)

4. Direct infection of nerve trunk—Leprosy.

5. Chronic focal infection—Teeth, tonsils, cervix uteri, and nasal accessory sinuses.

Cases included in the first four groups have been amply described in the medical literature and text-books. However, neuritis from the last named cause, chronic focal infection, has received little consideration, and it is this group of cases which we wish to discuss.

Symptoms of multiple neuritis from chronic foci of infection are not unlike those from other intoxications except that in our limited number of cases, the pain was possibly more severe. The earliest and most prominent symptoms are sensory, varying from a slight paresthesia and sensation of numbness, to excruciating pain. Pain is the only symptom in a number of cases especially in the cervico-occipital region, the chest, and abdomen. Patients usually first complain of soreness and a mild aching sensation. As the condition progresses there is a continuous aching pain and this is not relieved by local applications or the usual analgesics. Patients are unable to rest at night and say that they "are unable to get into a comfortable position." These sensory symptoms may precede the motor changes by days and usually by weeks and may be the only symptoms present. Of the motor changes the patient notices first a progressive weakness followed by paralysis and shrinking of the muscles. In only one of our cases did the patient complain of loss of sphincter control. Examination in the early stage of the disease shows only tenderness

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**Dr. Corley is a graduate of the University of Michigan Medical School Class of 1919. Internship at New Haven Hospital, New Haven, Connecticut. Instructor University of Michigan Medical School for one year. His practice is limited to Internal Medicine.

over the affected nerve, more severe at its point of exit from deeper structures. Before other changes take place this tenderness may be confusing and lead to a diagnosis of disease of some underlying viscus. Thus the diagnosis of angina pectoris, cholecystitis, partial intestinal obstruction, salpingitis, or chronic appendicitis may be made. The last named diagnosis is too frequently confirmed by the roentgenologist, and later by the pathologist, to the reward of the surgeon but without relief to the patient. Carnett in his excellent articles on pseudoappendicitis, has called attention to this type of pain, and the frequency with which the patient is unrelieved following operation for supposedly intra-abdominal pathology. As the disease progresses, definite motor changes are found, manifested first in exaggeration of the tendon reflexes, later in their diminution and absence. There is definite weakness of the muscles, progressing to total paralysis and atrophy. The paralysis is flaccid in type. If the legs are affected, the gait may be ataxic and closely resembles locomotor ataxia. This is due to weakness of the muscles, together with some loss of sense of motion and position.

Evidence of a general intoxication in these cases is found in the involvement of other organs outside the central nervous system. One patient showed a definite arthritis with pain, crepitus and limitation of motion of the affected joint. Two patients showed definite mental changes manifested by a marked depression, weeping, fear of death, etc. One patient developed a definite auricular fibrillation which lasted only forty-eight hours and has not recurred since the removal of his foci. Patient's rest is inadequate because of sensory changes, appetite is poor and there is marked loss of weight. Temperature is not elevated.

The laboratory findings in multiple neuritis are essentially negative. In one case (F. B. E.) there was a neutrophilic leucopenia which is not essential, however, to the diagnosis of toxemia from focal infection. In others the blood, urine, stools, and blood chemistry were entirely negative. In the one case in which spinal puncture was done the spinal fluid was entirely negative. Negative findings are reported in the spinal fluid of neuritis of other types. Blood Wassermann was negative in all our cases.

In diagnosis differentiation between neuritis and neuralgia is generally impossible in the absence of motor changes. From a

therapeutic standpoint it seems best to regard neuralgia as merely a symptom rather than a disease process, and thorough search should be made for the cause, mechanical or chemical, of pain following the distribution of any nerve or nerve group. From this view point the differentiation is unimportant.

Landrys paralysis is recognized by massive paralysis, rapidly ascending from the feet, the absence of pain on palpation of nerves and muscles, and the rapidly fatal outcome. Syringomyelia shows characteristic disturbances of sensibility to pain, heat, and cold, of a dissociative type, while in neuritis there is loss of all forms of sensibility corresponding to the nerves affected. In anterior poliomyelitis the onset is more acute, is febrile, there is less pain, and loss of sensation does not occur.

Tabes dorsalis is frequently mistaken for neuritis but is characterized by slower onset, lightning pains, abnormal or absent pupillary reactions, optic atrophy, absence of paralysis or tenderness on pressure, and the characteristic findings in the spinal fluid including the Wassermann reactions and gold curve.

The differentiation of pain of neuritis from that of pathology of some underlying viscus is most important, and most frequently ignored; this is especially true of abdominal pain. The diagnostic findings in disease of abdominal organs are well established, and the diagnosis of disease of any organ should not be based on a single symptom, pain, but should include a careful evaluation of all other signs and symptoms. The mere finding of pain and tenderness over some abdominal organ does not warrant a diagnosis of disease of that organ. Pain may be referred, or may be due to definite nerve pain in the abdominal wall. Neuritis or neuralgia in the abdominal region may give rise to pain, localized to any small area, or may give to the patient a sensation of fullness which he feels would be relieved by eructation or passing of gas by bowel. Further inquiry leads to the history of the pain radiating elsewhere, lameness in the back corresponding in location to the nerve affected, and the history of a certain position of the spine in which the patient may obtain relief. There are frequently evident other results of chronic focal infection such as painful and enlarged joints or other affected nerves. Examination with the abdominal wall tense and relaxed as described by Carnett shows the tenderness to be located in the abdominal wall. There is tenderness or hy-

peresthesia following the distribution of the nerve supplying the tender area, frequently with tenderness or limitation of motion of a corresponding region in the spine. Intercostal nerve pain in the region of the heart may be distinguished from angina largely by the effect of exercise and the absence of other cardiac symptoms.

Multiple neuritis can not be confused with arthritis if the localization of the pain, swelling, and redness of the joints is noted. In arthritis there is a definite limitation of passive movement. Because of the mental changes which accompany certain types of toxic neuritis, a diagnosis of arterio-sclerotic dementia is made. The most important finding in the diagnosis between the two conditions is the presence of a definite sclerosis of the retinal vessels in cases of arterio-sclerotic dementia.

The diagnosis of the etiological factor in multiple neuritis is largely a matter of exclusion. Multiple neuritis occurring in presence of chronic foci of infection and in the absence of other intoxications would point to the focus of infection as the cause of the disease. Other etiological factors may be present simultaneously, as was the case in one patient with a history of alcoholism whose neuritis did not abate following the withdrawal of alcohol, until after tonsillectomy. Improvement following tonsillectomy was prompt and definite up to some time after leaving the hospital, when another drinking bout caused a recurrence of his symptoms. At the onset of his illness before motor changes occurred his abdominal pain had been attributed to disease of gall bladder and appendix.

The treatment of neuritis from chronic focal infection is self evident. In the presence of a number of foci however, it is advisable to go about their removal cautiously. If the teeth and tonsils are both infected, they should not be removed at one time. Or if there are a large number of abscesses about the teeth, these should be extracted, one at a time, at an interval of several days. The added infection thrown into the blood stream by removal of a large number of foci at one sitting, has been known to result fatally from an overwhelming septicemia. The curetment of abscess cavities about the apices of teeth should never be done, for the same reason.

CASE REPORTS

M. S., age 35, married, housewife.

Chief complaint—General weakness, pain and prickling sensation in the feet, legs, hands and arms.

Family history—Negative.

Personal history—Typhoid at 23. Tonsillectomy at the age of 32. Tubes, ovaries and uterus were removed at the age of 34. No history of recent infection or exposure to exogenous poison.

Present illness—Six weeks prior to examination, patient first noticed a prickling sensation in the feet and legs so severe that she could not rest. This rapidly involved the feet, legs, thighs, hands and arms. She then noticed progressive weakness involving the muscles of the extremities and the trunk muscles as well, with such tenderness of all muscles that she was unable to lie comfortably in bed. She finally lost sphincter control, passing feces and urine involuntarily. She became unable to walk without support, her arms and hands were so weak that she was unable to comb her hair. Throughout her illness her appetite was very poor and the weight decreased from 115 to 89.

The interesting findings in the physical examination were: marked emaciation; extreme general weakness; teeth that showed a moderate amount of dental work and some pyorrhea; no tonsil remains; normal heart, lungs, and blood pressure; normal pupillary reactions; normal facial and extraocular movements; absent biceps, triceps, knee, and Achilles jerks. Gait was peculiar and was characterized by extreme weakness in movements of the knees and feet. Weakness on dorsiflexion of the foot necessitated lifting the foot very high and this in turn was difficult because of the weakness of the flexors of the thigh. All muscles of the arms and legs showed extreme weakness. Palpation of the affected muscles was painful. Patient complained of prickling and painful sensations more severe in the feet but also present in the hands and arms. No atrophy of any muscles was noticed. Urine and blood Wassermann were negative. Stools were negative for blood and parasites. X-ray examination of the teeth revealed pyorrhea or apical abscesses about every tooth but one. Diagnosis of multiple neuritis was made with the infection about the teeth as the probable cause. Removal of all teeth was done at once and was followed by gradual disappearance of her symptoms. Within three months she had gained in weight from 89 to 130 lbs., had regained full strength of all muscles, reflexes were normal, and she was able to do her own housework.

Patient L. M., male, age 67, married. American. Day laborer.

Patient entered the hospital May 23, 1927 complaining of pain and weakness in the shoulders and arms.

Family history—Unimportant.

Personal history—Unimportant. He gives no history of having had tonsillitis or quinsy.

Present illness—Four months prior to admission the patient began to have sharp shooting pains in the left chest, shoulder and arm. These were intense at times and were not associated with exercise or exertion. At the time of onset patient was shoveling several tons of coal daily and was exposed to severe cold and dampness. After a few weeks the pain appeared in the right arm and shoulder and later in the cervico-occipital region. He was then unable to rest without opiates. About two months after the onset of the pain the patient noticed marked weakness of the shoulders, arms, and hands, followed shortly by shrinking of the muscles in these regions. Weakness became so severe that he was unable to feed or dress himself. From the onset of the pain, he had marked emotional upsets characterized by weeping, irritability, outburst of temper, extreme depression with extreme fear of death, dissatisfaction with

his care, etc. Throughout the illness his appetite was very poor he was unable to rest at night and would frequently sit in a chair by the stove all night. No history of exposure to any of the common chemical poisons could be elicited and he had no history of any recent acute infection.

Physical examination: This shows a man rather senile in appearance and in extreme pain. Height about 68 inches. Weight about 130 pounds. Of the significant findings there were noted an advanced arcus senilis, sclerotic peripheral arteries, artificial teeth, and tonsils from which pus could be expressed. Chest was emphysematous. A soft systolic murmur was heard at the aortic area with accentuation of the aortic second sound. Blood pressure 136/88. Pupillary reactions, extraocular and facial movements, cremasteric, umbilical, patellar, Achilles, and plantar reflexes are normal. Station and gait are normal with eyes open and closed. Biceps and triceps jerks were absent. There was marked atrophy of the muscles of the shoulders, arms and hands. Weakness was such that he was unable to feed himself and all movements of the arm were difficult. Examination of the urine was negative. Non-protein-nitrogen 28 mg. per 100 cc. of blood. Blood Wassermann was negative on three different occasions. Red count and hemoglobin were normal. White blood cells 4,400 with slight decrease in the neutrophils. Diagnosis of multiple neuritis from tonsillar infection was made. On May 26, 1927 tonsillectomy was done under local anesthesia. Within one week definite general improvement was noticeable, especially in the disappearance of the intense pain. Within three weeks he was able to feed and dress himself. In three months the patient had sufficiently recovered to be able to do strenuous work of a day laborer, although there was some atrophy, most noticeable in the muscles of the thenar and hypothenar regions, although the grip was normal. He still complained at that time of some paresthesia in the left third and fourth finger.

F. B. E., age 51, married. American. Male. Garage owner.

Patient first seen in June, 1926, complaining of:

- (1) Pain in the back of the head and neck.
- (2) Weakness.
- (3) "Nervousness."

Family history—Not important.

Past history—Of importance in the past history is, diphtheria, in childhood; illness with chills, fever, and jaundice, lasting three months at 20. He had two attacks of renal colic, recurrent attacks of tonsillitis and quinsy, and denies venereal disease. About four years prior to examination he had almost daily dull aching pains in the cervico-occipital region which lasted about one year. These were very similar to the pains described in the present illness. No history of recent acute illness or exposure to the common chemical poisons.

In January, 1926, the patient complained of pain which began in the cervico-occipital region, became progressively more severe and radiated to the right shoulder and hand. A few weeks after the pain was noticed in the shoulder and arms he began to notice weakness in the right hand, arm and shoulder so that active abduction of the arm was very limited. Soon there developed severe pain in the shoulder joint with crepitus and limitation of motion. About three months after the onset of sensory symptoms a definite atrophy with increasing weakness of the infraspinatus, supraspinatus, and deltoid group of muscles was noted. In addition to the localized changes in the

neck, right shoulder and arm, there was extreme general weakness so that walking from one room to another was difficult. There were no sensory changes in the legs or left arm. At about the onset of the pain the patient also became depressed mentally and would come home at night weeping. The mental symptoms became so severe that he was quite sure he was going to die, threatened suicide, and would weep bitterly on mention of his own condition. The patient was able to talk intelligently on other subjects, however, and there was no disorientation or loss of memory. In July, 1926, the patient had an attack of dyspnoea, rapid and irregular heart, with cyanosis, lasting 48 hours.

Physical examination showed a man in severe pain, much depressed mentally, weighing about 140 pounds and about 71 inches in height. Color was good. Tonsils were enlarged, cryptic and pus could be expressed from the crypts. Several teeth were devital. Heart was regular except an occasional extrasystole. Sounds were of rather poor quality. Blood pressure 106/72. Peripheral vessels were not markedly sclerotic. Retinal vessels (as reported by Dr. W. A. Cochrane) showed very slight sclerosis. Abdomen showed some tenderness on pressure in the midepigastrium. There were large varicose veins on both legs with a scar of an old varicose ulcer on the left. Neurological examination showed normal pupillary reactions, and no facial or extraocular paralysis. Tongue protruded in the mid-line with slight tremor. Palpation of the upper cervical and occipital region, shoulder and upper arm was very painful. There was marked atrophy and weakness of muscles of the shoulder girdle. Biceps and triceps jerks were not obtained on the right side, were normal on the left. Active abduction of the right shoulder was limited to about 20 degrees. Passive abduction was limited to less than 30 degrees because of pain in the shoulder joint where crepitus could be felt. All muscles of the hand and arm were very weak. There was some loss of the sense of touch so that objects held in the hand could not be distinguished unless grossly different in shape. Umbilical and cremasteric reflexes were present. Knee and Achilles jerks were present and equal. Plantar reflexes were normal. Station and gait somewhat unsteady, apparently because of weakness but without definite ataxia.

Laboratory examination showed the blood Wassermann negative on three different occasions. Urine was repeatedly negative. R. B. C. 5,000,000. Hemoglobin 90. W. B. C. 3,800. Stool examination negative for blood and parasites. In August, 1927, under local anesthesia tonsils were removed. Patient had an uneventful recovery and within three days after removal of the tonsils the pain, which had become excruciating, practically disappeared. The remaining teeth were extracted one at a time. Patient immediately began to feel better. mental condition improved, he gained strength rapidly and within six months his recovery was complete including a disappearance of the atrophy, a complete return of his strength and a gain of 55 pounds in weight. The mental condition had so far improved that he obtained a responsible position at the Michigan State Prison.

In conclusion, neuritis has definite and characteristic signs and symptoms by which it may be recognized as a clinical entity. Paralysis and atrophy of muscles are frequent, but not constant, findings and their presence is not necessary to a

diagnosis of neuritis. In cases complaining of pain in the chest and abdomen the findings are sufficiently characteristic to differentiate the pain, originating in disease of the nerves, from that of pathology of the underlying viscera, even though the pain may be sharply localized over one particular organ. Multiple neuritis, in our experience, is more frequently a result of toxemia of focal infection than all other causes combined. Removal of all foci of infection in such cases is generally followed by complete recovery.

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DISCUSSION

Dr. Elmore Lewis (Jackson): Personally, it has always struck me that the reason we found such a problem is that many of them have passed the age of 40, passed the time when we think of foci of infection having pretty much to do with the condition, and usually the age when we would likely look at the tonsils and infections about the body and because of age pass them up and see what we could do from medical treatment. I do know that in a number of cases at the age of 50, and even beyond the age of 60, if they are looked for you will find very septic conditions in the throat which appear on the surface to be normal.

Dr. G. M. Livingston (Highland Park): I should like to ask Dr. Corley if he has had any experience with the syndrome similar to the one he has described in early cases of pregnancy. The case I have in mind is one that is in about the fourth month of pregnancy and has had very severe symptoms involving the fourth month with a good deal of tenderness and some edema in the hands and fingers. The patient has complained very bitterly of night pains so that she is not able to sleep. That has persisted now for about two months and she had something similar at a previous pregnancy. I am wondering if Dr. Corley can help us out on the treatment of such a condition as this.

Dr. F. C. Currier (Grand Rapids): I should like to discuss this paper having been particularly interested in multiple neuritis for the past several years, especially in cases in which there was a double facial, involved cases of facial diplegia. That type of case is frequently associated with involvement of other cranial nerves, and it offers a different problem in distinguishing cases of ordinary multiple neuritis from that associated with encephalitis. In the lethargic type of encephalitis, we have an involvement of the face which simulates a facial neuritis of the peripheral type, but it is not the same thing. We are frequently running into cases in which we have central involvement of the cranial nerves as in a very recent issue of one of the neurological journals. Dr. Wallader of New York reports this case of central type neuritis.

The reason I mention these cases associated with encephalitis and peripheral neuritis associated with encephalitis in the prognosis is not as good as it is in multiple neuritis. I had a case in

which the cranial nerves were involved associated with peripheral neuritis of the motor type in which the patient's medulla became involved, the nerves of swallowing and of speech became involved, and it presented, as you might imagine, a very difficult problem and the patient went on to a fatal outcome. H. Patrick of Chicago was one of the first back in 1916 to completely review the literature in regard to a double facial paralysis as a part of a multiple neuritis. He had several cases and those cases had a favorable outcome. Several years ago I heard him talk on this same subject, and he warned the Association of Neurologists, that these cases always had a favorable outcome, but the last time he had been called in consultation on this particular type of case, the outcome was likewise fatal.

The removal of foci of infection during an attack of acute multiple neuritis, it seems to me, is a very delicate problem, especially in these cases where we have central involvement or cranial nerve involved. One should be on the constant lookout for the possibility of early involvement of nerves controlling deglutition. It is an easy matter to confuse these cases where we have a double facial involvement of nerves controlling deglutition. It is an easy matter to confuse these cases where we have a double facial involvement with other diseases such as myasthenia gravis where the patient has an involvement early of his facial muscles. I have had that very thing occur to me. I mistook a case of myasthenia gravis for a case of facial diplegia and the patient died.

The thing goes in waves and you mistake one of these waves of recovery as being due to recovery from multiple neuritis, and perhaps if the patient drifts away from you, the next thing you hear is that the patient is in a very serious state of affairs. That very thing, I must confess, happened to me. I mistook that for a case of multiple neuritis. There was the same condition of the eyes, the patient was unable to close either eye just as we get in a peripheral type of facial paralysis. The next thing I heard was the patient was unable to swallow, unable to eat, and he had to have a gastrostomy type of operation and was fed artificially through a tube. This case was reported as being the only case of myasthenia gravis ever being saved by that means. I think Dr. Addison, the neural surgeon, reported it.

In the ordinary types of case such as Bell's palsy, where there is just one side of the face involved and that perhaps mild, it seems that Dr. Corley's suggestion about removal of foci of infection could be carried out. That was formerly thought to be caused by exposure to cold. We know now that it is due to focal infection either of acute and long standing type, and frequently they are relieved much the same as the peripheral type of patient would be which occurs coincident with the secondary type of eruption in lues.

Chairman Jennings: Are there any further discussions? I might mention myself several cases that I have had very briefly. The first was a patient just two years ago who had a very severe pharyngitis, apparently one of epidemic of several serious cases, one of whom died, another one of whom developed a double empyema. This patient was treated after these other two had occurred. His symptoms were extremely severe with dysemia and extreme prostration. As a chance, we treated him with antistreptococcus serum. He immediately recovered of the attack and left the hospital apparently well.

A very short while afterwards he came back with a marked muscular weakness and had a flaccid paralysis of his legs and partially a paresis of his arms with loss of reflexes without sensory change. Dr. Patrick saw the patient and made an absolute diagnosis of poliomyelitis. He did, however, completely recover in every way in a short time without any residual paralysis which makes us feel that it was not a case of infantile.

Another case comes to my mind of a man having a definite paresis, not of severe type or not of the advancing type. He had a great deal of pain in his body and legs which, at the time, I attributed entirely to his non-degenerative disease. He was not satisfied, however, and some definitely infected hemorrhoids were discovered. Upon the removal of these his pains entirely cleared up and he has been well of that since.

Dr. Cecil Corley (Jackson), closing the discussion: In answer to the doctor's question regarding pregnancy, that suggests multiple neuritis, but I think you mentioned edema. I have never had any case of neuritis in pregnancy. Frankly, I believe the reason is a toxemia of some kind which would cause both the neuritis and edema.

However, I have had no experience with that type of case.

I am glad Dr. Currier mentioned the removal of these foci during the acute attack. In all these three cases I reported, it was a matter of having to do something, and the three of them were getting rapidly worse.

I remember one had auricular fibrillation at one time. He had a very severe myocarditis, and I had Dr. Plinn Morse of Detroit look at him. His remark was that he was going to die if we didn't do something so why not go ahead and try everything to give him a chance. As a matter of fact, none of these patients suffered any ill effects from the removal of the foci. I was very much surprised that they didn't because they were all very sick individuals, with rapid loss of weight, emaciated, and rapidly going down hill.

In view of that, I think we should be able to recognize those cases a little sooner and remove their foci before they get to the extreme stage. When it is a progressive thing and none of the measures you can carry out seem to give relief, I think it is wise to go ahead and remove the foci at some risk before they get to the extreme stage of these three cases which I am reporting.

CAUSES OF MORTALITY IN APPENDICITIS

CLARK D. BROOKS, M. D.*
DETROIT, MICHIGAN

Probably one of the chief causes of the still high mortality in acute appendicitis, is the fact that medical treatment is given when the treatment should always be surgical. By this we do not mean that patients should always be advised to have immediate operation upon the first attack of carefully diagnosed appendicitis, but that appendicitis should always be viewed from a surgical rather than from a medical viewpoint.

The education of the laity must follow further education of more physicians regarding the important part which delay in operation plays in the death rate.

There will be times when even the most experienced clinician is puzzled regarding certain types of appendicitis, but if appendicitis is carefully considered in the differential diagnosis, little harm will follow the delay of a few hours.

One of the most dangerous general treatments is the promiscuous use of the ice bag when patients develop a pain in the side or suspected appendicitis. It is not uncommon for patients to prescribe an ice bag for themselves, when they have an acute attack of abdominal pain in the right side, before consulting a physician, because they have heard of some one who has had appendicitis cured by the ice bag. Often when a physician makes a diagnosis, the patient wishes a further trial of the ice bag, rather than submitting to operation, even when advised regarding the seriousness of delay. Just what good the ice bag accomplishes in acute appendicitis, we have never been able to convince ourselves. It masks the symp-

toms and we think is much more dangerous than a full dose of morphine given in a well marked attack. After an ice bag is applied for a few hours, the examining clinician can get very little idea of the rigidity or muscle spasm present. When an ice bag has been used ten or twelve hours or more this muscle spasm and rigidity is absent entirely as far as the palpating hand can discern, then one must depend only on the history of the case, the onset, character of pain, vomiting, nausea, fever, blood count, etc., and these later symptoms may be misleading, or absent as the most important early symptoms are those of muscle spasm.

Cathartics: When patients are first seen by their physician, it will be found that a large number of them have taken cathartics as soon as they have general abdominal pain. It may be possible that early cathartics may not cause much damage, but we are quite convinced that the giving of any cathartics in suspicious appendicitis is dangerous, as it aids and

* Dr. C. D. Brooks graduated from Detroit College of Medicine and Surgery 1905; associate surgeon Harper Hospital; consulting surgeon to Womens and Receiving Hospital; associate professor of surgery, Detroit College of Medicine and Surgery.

causes spread of infection, and also hinders an early diagnosis. As a rule, I believe that cathartics should be avoided, and the laity instructed not to resort to them in cases of acute abdominal pain, until the patient has been examined by a physician.

Blood Count: While the white and differential blood count are very important aids in diagnosis of the usual acute case of appendicitis, even in very severe cases there may be a normal or nearly normal blood count. Blood count is also of value in differential diagnosis in suspicious appendicitis and pneumonia, and in differential diagnosis. When possible, a blood count should always be made as an aid in diagnosis, the same as we elicit the pulse rate, and take the temperature. To have hourly blood counts, or repeated blood counts made, when the clinical symptoms of acute abdominal pain and muscle rigidity are present, may be very dangerous.

Temperature is of very little value in acute appendicitis. In a large number of acute gangrenous cases the temperature will not be more than 99 or 99½ or 99 6/10ths.

Retro-cecal Appendicitis: This is a very dangerous type. Here the pain is absent in the right iliac fossa, but slight tenderness and resistance can be found there, and the tenderness can usually be found along a line drawn from the umbilicus to the tip of the eleventh rib. When the tip of the appendix is upward toward the liver, the pain may simulate that of cholecystitis. This type of appendicitis may also cause symptoms in the genito-urinary tract by pressure on the ureter.

The Pelvic Appendix: Here we do not find tenderness over the right iliac fossa, but over the pelvic brim or supra-pubic area. In this type we may have diarrhoea and frequency of micturition. Vaginal and rectal examination will reveal spasm with marked resistance to the abdominal pressure in a bimanual examination. The early onset of a chill accompanying pain in the retro-cecal or pelvic region strongly indicates acute gangrenous appendicitis. Vomiting usually does not occur early.

We question whether the appendix ever becomes normal after an acute attack, if moderately severe, and even if it does not cause further disability, may act as an infective agent, as a factor in the production of emboli causing chloecystitis, and ulcer of the duodenum.

The infection of the appendix ends in resolution or non-resolution.

1. Resolution—this leaves the patient subject to recurrent attacks of appendicitis.

2. Non-resolution: Here we may have local peritonitis and abscess formation or diffuse peritonitis. The clinician must remember that it is quite impossible to foretell with accuracy the ultimate results of an attack of acute appendicitis seen in the early stages.

X-Ray in Diagnosis: We believe the X-ray is of little or no value in acute appendicitis. We advise against the use of X-ray in suspicious acute appendicitis, as it may be misleading to the clinician. If the appendix fills (it usually will not fill in acute gangrenous types or exudative types) we would not consider it nearly as dangerous as the acute case with a swollen gangrenous appendix which is already filled with pus and is edematous, so that obviously no barium could enter. We feel that the addition of the barium meal in the presence of acute suspected appendicitis is a very dangerous procedure.

Age. We have been surprised to note both in the opinion of the laity and of physicians that it is thought this disease attacks only the young. Our records show that we have had patients with acute primary gangrenous appendicitis 81 years old.

*Records from the Detroit board of health the first six months of 1928 show a mortality of 8 deaths after the age of 60. This we do not believe is an index to the actual number of deaths, as we feel that a number of mistakes are made in diagnosis in which the deaths are attributed to other causes which are actually those of acute appendicitis and peritonitis.

SUMMARY

It is well to consider appendicitis in every patient examined who complains of acute abdominal pain, no matter what the location. We must remember that an appendix does not always occupy the position of Burney's point. It is often on the left side, deep in the pelvis, or retro-cecal in addition to the high retro-cecal position, which simulates gall-bladder disease. It will require a wide clinical experience to properly diagnose early in some of these cases. When a diagnosis has been made, prompt operation is very important if we wish to lower the mortality in this type of appendicitis.

The early emergency operation for acute appendicitis has a very low mortality and the most elaborate operation with a skilled clinical team and nursing has a high mor-

tality after late operation when peritonitis is well established.

Enterostomy is a very important life-saving measure associated with delayed operations in which there is accompanying small bowel distention.

TABLE NO. 1

Last 50 Cases of Ruptured Appendicitis	
33 males—17 females	
Youngest 1½ years—Oldest 75 years—Average age 28 years	
28% under 10 years of age.	
30% between 10 and 30 years of age.	
22% between 30 and 50 years of age.	
20% over 50 years of age.	
Average duration of symptoms—5 days.	
18% of cases had cathartics.	
22 cases general peritonitis.	
28 cases localized peritonitis.	
6 cases died.	
2 cases died.	

TABLE NO. 2

Deaths From Appendicitis by Age Groups	
Detroit, 1926-1927 and the First Six Months of 1928	
Year	0-9 10-19 20-29 30-39 40-49 50-59 60-69 70-79 80 Total

1926	22	47	62	59	43	24	12	—	—	269
1927	34	45	52	61	36	29	6	3	—	266
* 1928	20	20	28	23	16	11	5	2	1	126
* First 6 months.										
From records of Detroit Board of Health.										

TABLE NO. 3
Deaths From Appendicitis, 1910-27

Year	No. of Cities	Population	Deaths	Death rate per 100,000
1910	60	18,656,436	2,480	13.3
1911	60	19,118,117	2,616	13.7
1912	50	19,569,879	2,712	13.9
1913	60	20,040,600	2,818	14.1
1914	60	20,503,331	2,948	14.4
1915	60	20,965,052	3,042	14.5
1916	60	21,426,774	3,175	14.8
1917	60	21,888,494	3,167	14.5
1918	60	22,350,216	2,907	13.0
1919	60	22,811,937	3,114	13.7
1920	60	23,273,662	3,644	15.7
1921	60	23,725,583	3,899	16.4
1922	50	24,177,504	3,936	16.3
1923	60	24,630,425	4,196	17.0
1924	60	25,082,945	4,338	17.3
1925	60	25,130,435	4,430	17.6
1926	57	25,952,914	4,500	17.3
1927	58	26,468,067	4,622	17.5

Reprint from "The Spectator."

ELECTRO-CARDIOGRAMS AND THEIR CLINICAL SIGNIFICANCE

JOHN L. CHESTER, M. D., F. A. C. P.*
DETROIT, MICHIGAN

From time immemorial, man has been a sign-writer, a short form indexer of events and information. In cuneiform, symbols, hieroglyphics, rock pictures, down to the invention of shorthand and the Morse Code, he has sought to transmit knowledge with a maximum of accuracy and a minimum of manual effort. With the advent of electricity the process has been intensified, so that weather, earth tremors, temperature, a thousand and one disturbances, mechanical and functional, have been harnessed instrumentally to the end that their variations and every movement may be recorded automatically in some permanent form, and he who reads and is willing to learn may know without peradventure just what the significance is.

The graphic chart on which wavy lines are written automatically, is quite familiar to everyone. These lines or symbols, may be a varying temperature record, or the precise charting from hour to hour of a particular machine's output or a motor's load. The up and down strokes and curves represent the pulse from which the initiated can read the symptoms of irregularity and apply remedies if remedies are needed or available.

The human heart may be compared to the motor. It is confined within a very small space; it must be quiet, frictionless, self-starting and self-adjusting, so that it may respond instantly to calls for heavier work, and yet be capable of slackening down when the demand is lessened. It must furnish its own repair material, and apply repairs without stopping the machinery or becoming disconnected from the load. It must be in order and working 24 hours a day for its owner's lifetime. It is

a most powerful and complex machine, and its complex activities can now be charted by mechanical means, studied and interpreted.

It is not my purpose to go into a minute description of the particular agency which thus records mechanically movements of the human heart, and time forbids that I detail the process and manner of its employment. Suffice it to say, that each muscle bundle of the heart as it contracts, generates its own particular electric current, and these currents are collected by wires attached to the limbs of the person under examination, passed through a fine filament between the poles of a powerful magnet, the filament swaying back and forth according to the quality of the current passing through it, and by an optical arrangement producing a moving shadow which is photographed. The resultant print is an exact picture of the activity of the heart while under examination—is in fact, an electro-cardiogram, the hieroglyphics of chiro-cardiography.

An electro-cardiogram is an autograph of a succession of events occurring within the cardiac walls, and like the autograph of fingerprints of a person, it always differs

* Read before the Section on Medicine, M. S. M. S. at the Annual Meeting, Detroit, September 27, 1928.
* John L. Chester, M. D., F. A. C. P. Attending physician at Providence and Eloise Hospitals.

from the autograph of every other person. In disease, the variations from the normal rhythm are faithfully photographed with each contraction of the heart, and the expert interpreter of the graphic chart is in position to make a more thorough investigation of the condition of the heart muscle than has been possible through palpation, precussion and auscultation. The niceties of diagnosis and the clarity of prognosis are immeasurably increased with the employment of this latest recruit to medical science. The electro-cardiograph is not an experiment nor a mere delicate plaything of the laboratory investigator. It is an everyday tool of the modern clinician, in its sphere equally as necessary and indispensable as X-ray examinations of the chest.

What then is the practical value of the electro-cardiograph to the general practitioner, and what interest should he have in electrocardiograms? The answer to the latter question is all-embracing. He must dismiss from his mind the thought that the graphic chart written by this cardiac stylus is a distinct and forbidden language only to be deciphered by savants fit for companionship with the patient porers over Chaldean brick or musty Ptolemaic Papyri. Electro-cardiography is an easy universal key, a scientific sign-writing, a record of great precision and diagnostic value, an essential written supplement to information acquired by the ordinary methods of clinical investigation, at once understandable by the average physician who cares to rend a mystic veil, which in the final analysis is not so very mysterious, by heeding certain signs and unvarying indications, in a conscientious desire to add to the summum of his already acquired knowledge.

Now then for a short exposition of the *modus operandi*. In taking an electrocardiographic record, the common practice is to accept three leads which I will describe as follows:

Lead I. (transverse) from the right and left arms.

Lead II.—(axial) from the right arm and left leg.

Lead III.—(Left lateral) from the left arm and left leg.

This has been the custom since Einthoven first employed the string galvanometer to register changes in electric potential in the human heart, and is productive of the best results today. The reason for this is that the apex of the heart points to the left, so that the best

lines for observation of the differences of potential are—across the top of the heart between the arms; the axis of the heart between the right arm and left leg; the left side of the heart between the left arm and left leg.

With the patient "harnessed up", normal conditions observing, and the electric current turned on, we will assume that the string has oscillated and been standardized, the photographed shadows developed and printed. The base line is the shadow of the string when no current is passing through it. The reading of the leads is the next step to be achieved, and in this connection Lead II is first in importance in the information it conveys.

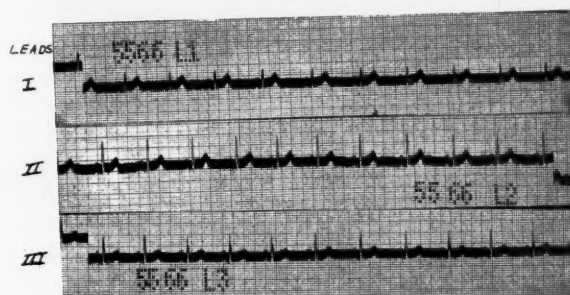


Figure 1.
Normal Electrocardiogram.

A normal heart will have an electrocardiogram something like Fig. 1. You see a series of waves succeeding each other in systematic undulations practically mathematically alike. And their schema I will endeavor to make plain:—as the auricle contracts it produces a P wave which is usually a little mound above the base line; the ventricle becomes active from the blood coming from the auricle and causes a little downward dip called a Q wave which leads on to the chief activity of the ventricle represented by the R wave, resulting from the closing of the mitral and tricuspid valves and the opening of the aortic valve, whereupon the ventricles contract and squeeze the blood into the pulmonary artery and aorta as represented by the S and T waves. In a word, that portion of the electro-cardiogram from the beginning of P to the commencement of Q is called the auricular complex, and that portion between the commencement of Q to the end of T is called the ventricular complex. The interval between T and the following P represents diastole. P may be up or down; Q is always down; R is always up; S always down; T may be up or down.

An approximate normal may be given for the factors of order in which waves may be expected to occur, direction up and down, the height of the climb or depth

of the dip, also duration, yet it must not be forgotten that there is a considerable variation in electro-cardiograms without one being able to say whether or not they lie outside of the domain of the normal. Respiration, exertion, and the position of the heart, all have a modifying influence, and the electro-cardiogram as an expression of the heart's activities is but a relative interpretation to be considered with all the other factors of a person's physical and mental make-up. It may be here stated that the minor waves are relatively of less significance, the vital information comes from interpretations of the P R and T waves connected with the systole of the heart.

Regularity of the heart beat is shown in even spacing of the distance between successive R waves, while unequal spacing clearly evidences irregularity. One more physical feature remains to be explained—the delicate cross lines forming squares, which serve to measure the height and width of the heart waves, and as a gauge for timing the cardiac events.

So much for a "normal" electro-cardiogram; let us now advance to an abnormal one.

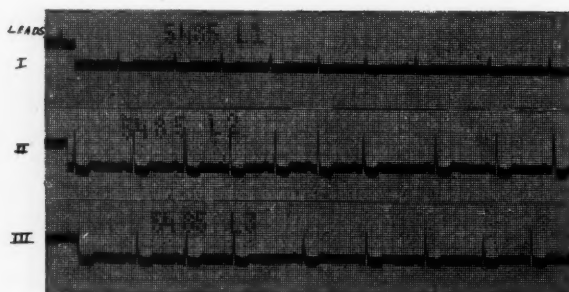


Fig. 2
Sinus Arrhythmia.

Represents a true case of Sinus Arrhythmia, also known as "The Youthful Type of Irregularity." It is frequently encountered in the records of children and young adults, and is probably due to vagal influences and likely to disappear with maturity. The commonest example is a slight quickening of the heart's action with inspiration, followed by a corresponding slowing on expiration. The irregularity is confined solely to the diastole period of the record and the gradual lengthening of the waves may be noted, the normal sequence of the auricular P and the ventricular Q-R-S-T waves remaining undisturbed. May I here interpolate that this irregularity was formerly supposed to be a form of heart disease necessitating a life of semi-invalidism. The electro-cardiograph has

probably done more to dispel this fallacy than any other agency. The abnormality is so common as to be practically normal, and its detection entails little or no treatment.

We will now proceed to some examples of paroxysmal tachycardias which are characterized by the sudden onset of a series of responses of the cardiac muscle to impulses, arising at a high rate of speed from a single irritable focus other than the normal pacemaker. The terminations are characteristically abrupt and may be followed immediately by a pause similar to the compensatory pause seen after a single premature contraction. Paroxysmal tachycardia may be of auricular or ventricular origin, or it may originate in the A-V node.

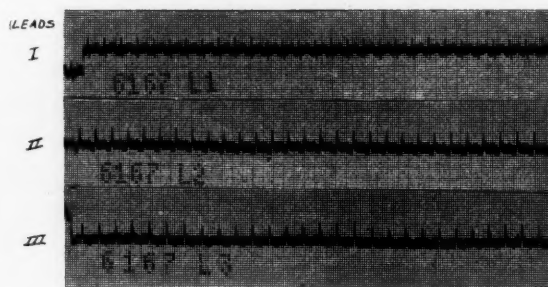


Fig. 3
Paroxysmal Auricular Tachycardia.

Charts a true case of auricular tachycardia, the heart responding to stimuli from a misplaced or ectopic pacemaker in the auricle, the P wave being abnormal either inverted or superimposed on the T wave. The R wave is usually normal, while the T wave is hurried and distorted.

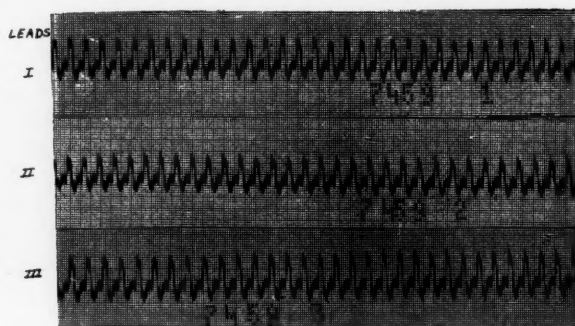


Fig. 4
Ventricular Tachycardia.

Charts a case of paroxysmal tachycardia of ventricular origin, the R wave being abnormal in form for a succession of four beats or more and the P wave lost sight of in the abnormal ventricular complex. It is worthy to note that the number of cases of paroxysmal ventricular tachycardia detected have been substantially increased

since the electrocardiograph has been more widely used.

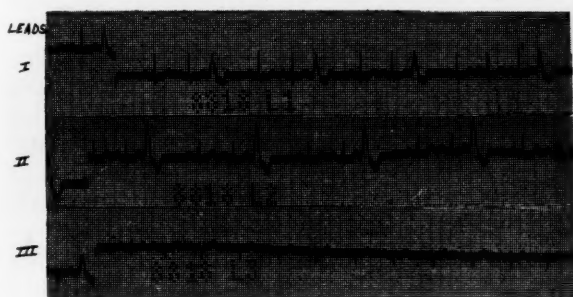


Fig. 5
Ventricular Extrasystoles.

VENTRICULAR EXTRA SYSTOLE

This is nothing more or less in effect than an earlier day definition of what is now called "premature contraction of the ventricle," and can be identified in the graphic record by a premature beat either very closely upon the P wave of that contraction, or else the P wave may be buried in the distorted ventricular complex. If occurring in the right ventricle, the R wave is up in Lead II, and down if of left ventricular origin. In this condition there is usually a disturbance in rhythm due to what is known as the "compensatory pause," which means that when the ventricle is stimulated during contraction, it will not respond to the stimulus but waits for the next stimulus from the auricle. There is a normal evenly shaped P R T complex with a bizarre shaped wave thrown in, equal in width to any of the normal preceding R T complexes, indicating that it comes from the ventricle. Normal P waves are occurring in this abnormal complex indicating that the ven-

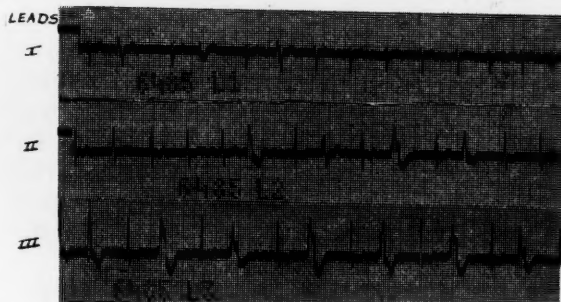


Fig. 6
Auricular Fibrillation. Ventricular Extrasystoles with Periods of Bigeminy.

tricle has already contracted and is now unable to respond. There is then a pause until the next P wave—the "compensatory pause."

Auricular Fibrillation is characterized by two outstanding features—absence of all

signs of normal auricular contraction and marked irregularity of the ventricular beats—a trembling paralysis of the auricle, as it were, with the ventricle unable to keep up the pace. The electrocardiogram shows a total absence of P waves but in their place countless little tremulous lines, each of which represent a tremor. R T waves of varying size are also shown in irregular rhythm.

Shows such a record with a ventricular extra systoles as evidenced by the peculiar shape of the R T waves, the beats here occurring in pairs, true evidence of bigeminy.



Fig. 7
Right Ventricular Preponderance. Auricular Fibrillation.

Shows a preponderance of the right ventricle along with auricular fibrillation. There is little or no sign of the R wave in Lead I, while the S wave is large.

Auricular fibrillation always indicates myocarditis—it may be transient, especially in pneumonia, goiter, acute fever, and never occur again, while it may last for years, and the patient becoming accustomed to the new rhythm may carry on fairly comfortably on a lower level. There are cases on record where fibrillation continued present for 15 years, one in particular where the onset did not occur until the patient was nearly 50 years old.

On the subject of ventricular preponder-

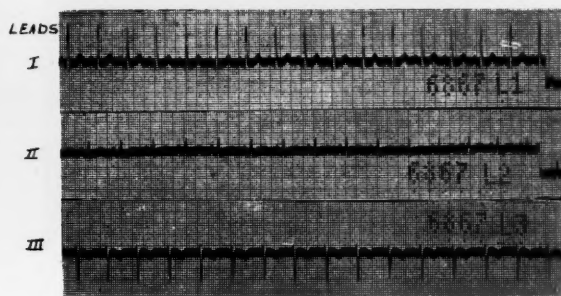


Fig. 8
Definite Left Ventricular Preponderance.

ance, it may be here mentioned that this term is used to indicate the relative increase in weight of one ventricle as compared with that of the other. It is in no sense synonymous with hypertrophy, and

can be diagnosed in the electro-cardiogram from the study of the Q R S complex in Leads I and III. If the R is high in Lead I, and has a downward deflection in Lead III, preponderance of the left ventricle is indicated, while the reverse of these conditions indicates right preponderance.

Is an example of definite left ventricular preponderance.

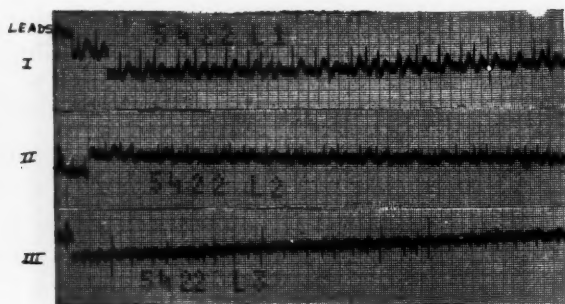


Fig. 9
Auricular Extrasystoles.

AURICULAR EXTRA SYSTOLE

The most frequent disturbance of the cardiac mechanism is due to premature beats—extra systoles—and the electro-cardiograph will always show the part of the heart from which they arise. Fig 9, shows an abnormal P wave occurring prematurely, and this is followed by the ventricular contraction. We know that the excitation wave comes from above the ventricles because the P wave is present. The center of this abnormal contraction is outside the S A node. The S A node sends out the next contraction before this center of excitation sends out another wave because the record shows us the following complexes are normal.

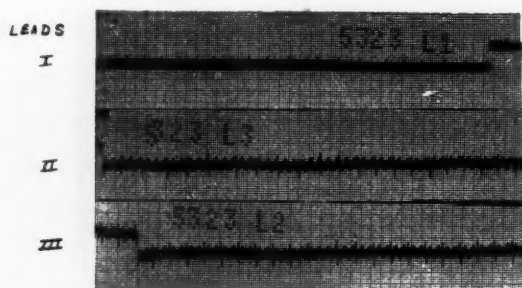


Fig. 10
Auricular Flutter.

Auricular flutter is a condition of the auricle in which it responds to a continuously circulating wave, the course of which may be constant or inconstant from cycle to cycle—pure or impure. This condition may be transient or persistent and occurs chiefly in elderly people. It is probably de-

pendent upon pathological changes in auricle such as fibrosis or myocarditis due to arteriosclerosis or infection. In this condition the auricles beat at a rate of 240-320, and this rapid rate is due to a circus movement revolving round the vena cava. Fig. 10 is a good example of pure auricular flutter with a ventricular rate of 150 and an auricular rate of 450. The P waves as they hit the base line quickly rebound, every third one showing an excitation of the ventricle. Mines has described this movement as a wave of contraction passing around a ring so that there is a refractory period of such length as to allow it to pass as the crest of the wave approaches it.

Auricular flutter is a relatively rare condition and is difficult to recognize without instrumental methods of investigation. There is usually a history of previous attacks of palpitation associated with substernal distress or actual pain. If correctly diagnosed the great majority of cases respond to treatment and that often in a dramatic manner. I read recently of a case occurring in an infant four months old, which would seem to be a rare anomaly in this case complete rest and digitalis was helpful, but did not prevent recurrence.

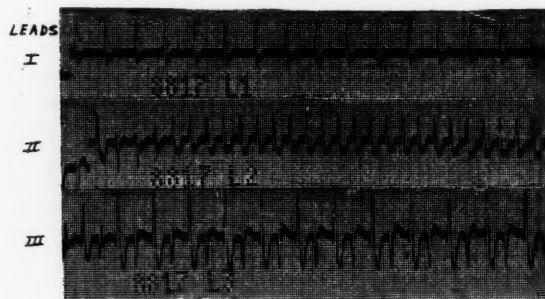


Fig. 11
Independent Ventricular Rhythm. Digitalis Intoxication.

My next graphic record is a tracing of a heart laboring under digitalis intoxication, and I am including this to show how the electro-cardiograph is of supreme use in controlling the administration of this potent drug, which must be given in massive doses in most cases in order to secure

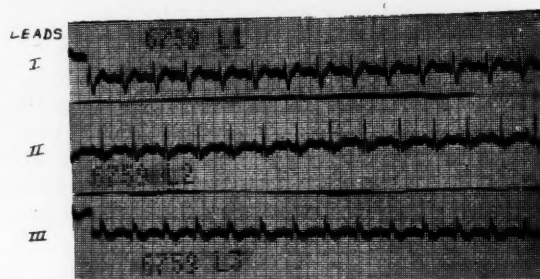


Fig. 12

the desired effect. The T wave is inverted and of U shape in digitalis poisoning, and when this phenomena appears on the chart it is a warning to discontinue the use of the drug. This slide also shows an independent ventricular rhythm.

We now come to an abnormal condition of the heart which until the advent of the string galvanometer, was not only very difficult of diagnosis, but when diagnosis was attempted, it was usually very unsatisfactory. I refer to heart block, which signifies the blocking of the excitation impulse at some point along its course. In other words, the muscular and nerve interconnection between the auricles and the ventricles is so interrupted that they beat independently of each other, the particular parts involved being the A V node and the bundle of HIS. There are different types of heart block, each receiving its name from the part of the conduction system involved. The blocks may be partial or complete.

Fig. 12 is an example of left bundle branch block occurring in the left bundle branch of HIS. The major curves in Leads I and III are slurred, and there is a delay in the Q S interval. This condition is associated with myocarditis.

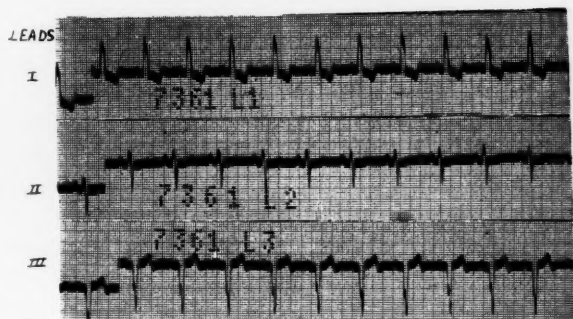


Fig. 13
Left Bundle Branch Block.

Is right bundle branch block, also associated with myocarditis. R and S are slurred and are in opposite directions in Leads I and III.

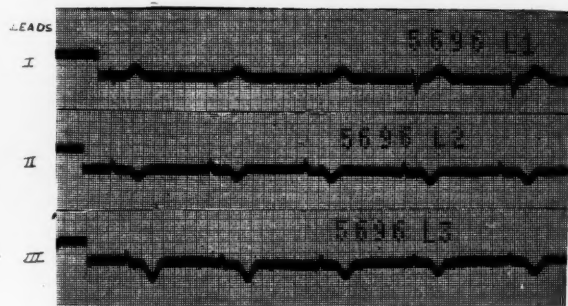


Fig. 14
Complete Heart Block.

The next tracing, Fig. 14, is an example of auricular-intraventricular heart block in which the whole system of impulse conduction from auricle to ventricle is blocked. This may be caused by lues, toxins, or structural lesions of any sort which automatically block the impulse. In such a case the auricles and ventricles beat absolutely independent of each other.

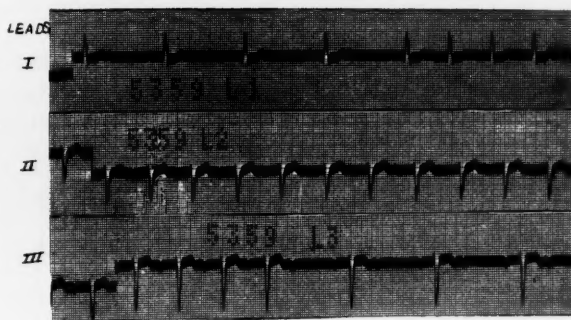


Fig. 15
Incomplete Right Bundle Branch Block. Partial Heart Block.

Records a case of right bundle branch block (incomplete). In Lead I the first four ventricular beats occur while the auricle beats eight times, and the last four of Lead III show a like phenomena.

Before exact methods of taking heart records came into practical use, recognition of heart block was more or less of a hit or miss proposition. Certainly our knowledge of partial heart block was slight, which condition invariably went untreated until the grave condition of complete heart block established itself. Heart block may be caused by infection—abscessed teeth, septic tonsils—sinus infections, appendicitis, rheumatism. It may also be the result of fibrosis, atrophy, coronary disease, lues, etc. Whatever the cause, specific diagnosis can only be arrived at through a thorough understanding of the conduction system and accurate interpretation of graphic records of the heart action. The

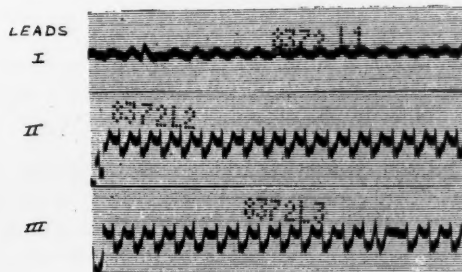


Fig. 16
Case of Coronary Thrombosis. Intraventricular Block.

type of heart block and degree of myocarditis present must be ascertained in order that the best possible service may

be rendered the patient. And the electro-cardiograph plus the ordinary methods of examination should be intelligently used to the proper attainment of this end.

Is a case of coronary thrombosis with intraventricular block, and this case is peculiar inasmuch as the electro-cardiographic diagnosis was confirmed by post mortem. You will note the regular bizarre shaped complexes which are difficult of interpretation.

My discourse today is primarily aimed at the general practitioner who is possibly laboring under the fixed idea that any paper which embraces electro-cardiograms is a dish for the connoisseur, something to be passed up as one would an unintelligible foreign-sounding menu. To the physician who has a broad knowledge of internal medicine, and who is willing to devote time to learning just what electro-cardiograms represent, I would say that interpretation requires a greater degree of common sense than technical knowledge. A layman can be taught to take the pictures correctly, but it requires the physician with practical experience in histories and physical examinations to properly evaluate them in terms of diagnosis, prognosis and treatment. The necessary studies will give him a better understanding of the physiologic and pathologic changes of the heart. They will help to confirm or refute the decisions come to as a result of intelligent use of his fingers, eyes and ears.

I do not presume to say the electro-cardiograph should be in every physician's office, for probably the preparation and interpretation of electro-cardiograms will be intrusted for some time to come to the

internist who has made a special study of the subject. But I do affirm this—the physician who desires to keep abreast of the times should familiarize himself to a working degree with all new facts and methods, and he who cannot interpret the chirography of the human heart with at least a modicum of intelligence, will be deficient in a method which is now becoming an integral part of modern medical practice.

Electro-cardiography identifies irregularities of the heart, tells where defects exist, and helps to differentiate between harmless abnormalities and those which indicate grave lesions. Investigation of heart action by this graphic method tends to create fresh interest in internal medicine for the general practitioner. He will acquire more definite knowledge of the various murmurs, arrhythmias and heart blocks. His whole conception of cardiac disease will be changed, and decidedly for the better. Instead of waiting for the post mortem report of the pathologist, he is presented with an opportunity to envision the living myocardium as he has never done before.

In the preparation of this paper I have relied largely on personal clinical studies guided principally by the monumental work and writings of Sir Thomas Lewis, the monographs of Doctors S. Calvin Smith, Bishop, Pardee and Reid. To my friend, Dr. F. N. Wilson of Ann Arbor, I am particularly indebted. He has been preceptor par excellence, mentor in difficulty, and more than stimulant to the enthusiasm I have for this splendid addition to our armamentarium of medicine.

COMFORTABLE EXERCISE HELPS DIGESTION

A gentle stroll after meals, especially if taken with an agreeable companion, will not retard digestion of the meal and may even help it. However, running a mile or two, unless you are a star sprinter, will delay the rate at which the digestive juices in the stomach are secreted and will also delay the emptying of the food from the stomach, and you will find yourself having "indigestion." Experiments made by J. M. H. Campbell, G. O. Mitchell and A. T. W. Powell and reported in Guy's Hospital London Reports have shown the effect of rest and of various kinds of exercise on the digestion of a light meal. The experiments were made on young men who, after eating similar meals, rested, walked alone, walked with friends or ran 2 or 3 miles slowly. For those who were used to running several miles a

day, running 2 miles slowly was not enough exercise to retard digestive processes, whereas for men who were not so fit, even walking quickly for an hour was enough to delay these processes. Exercise which makes you uncomfortable delays digestion while that which causes no discomfort helps, these investigators found. The reason probably is that exercise which produces discomfort and delays digestion also causes flushing of the skin and enlargement of the blood vessels of the skin, with a resulting temporary anemia, or lack of blood, in the stomach. The stomach, like every other organ, depends on its blood supply and cannot work well when this is interfered with. This same effect is observed when a very hot bath is taken immediately after a meal. The blood is all drawn to the skin and digestion is delayed.—Science Service.

PARTIAL HEART BLOCK IN UPPER RESPIRATORY INFECTION

LESLIE T. COLVIN, M. B.*

DETROIT, MICHIGAN

* Henry Ford Hospital, Detroit, Michigan.

It is matter of common knowledge that in cases of acute rheumatic fever there is a high percentage of cardiac involvement. This is equivalent to stating that acute rheumatic fever is a systemic disease localizing variously in joints, in the brain, in serous membranes, in fibrous tissue, but especially and most commonly in the heart. During the early and pyrexial stage of the disease the evidence that cardiac involvement has occurred must rest on the finding of unusual tachycardia, pericardial friction, change in heart sounds and the appearance of murmurs or arrhythmias, such as auricular fibrillation, on clinically determined heart block and, finally, on electro-cardiographic changes. The latter changes occur in 92 per cent of cases of acute rheumatic fever and are those of varying degrees of heart block, (in 42 per cent), arrhythmias and changes in the form of the ventricular deflections (1) and (2). It is also well known that diphtheria affects the myocardium very frequently, and a number of cases of partial and complete heart block occurring during this disease have been reported (3), (4) and (5).

It may not, however, be appreciated—perhaps we have never looked for it—that in other infections, usually streptococcal, affecting the upper respiratory tract, such as tonsillitis, sinusitis, pharyngitis and bronchitis, there may be much more definite cardiac damage than is usually demonstrated. This has been especially so in this clinic during the recent spring epidemic of upper respiratory infections. It has occurred in young people who had formerly never had any symptoms or signs of heart trouble, nor history of rheumatic infection, and whose hearts were apparently free from previous permanent damage. The initial infection has not seemed unusually severe. The patients have, however, complained of very slow return of strength and it was only with the restoration of a feeling of well being that the evidence of cardiac damage disappeared. We wish to briefly report four such cases recently seen by us.

REPORTS

Case No. 1. (S. T. Case No. 107787): This was a mulatto woman aged 46 years, seen by us April 13, 1928. She came for general examination because her daughter said she "looked bad." She stated that two weeks previously she had had a severe head cold with sore throat lasting about a week. She had not regained strength. There was an occasional sharp precordial pain, not anginoid, and slight dyspnoea and palpitation on exertion. There were no past illnesses.

Examination: Temperature 99.6 degrees, weight

125 pounds (estimated weight 144 pounds). There was no cyanosis or dyspnoea. The teeth were in poor condition with many snags. The tonsils were small and the fauces injected. The left maxillary sinus was cloudy upon transillumination. The thyroid was irregular. The lungs were clear. The cardiac apex beat was 9 c.m. to the left in the fifth interspace. The relative cardiac dullness was 3 c.m. to the right and 11 c.m. to the left. The cardiac rhythm was regular, the rate 60. The second sound at the apex was split and a short systolic murmur was heard at the apex. The radial pulse was regular, the artery wall palpable, and the blood pressure 118 m.m. systolic and 62 m.m. diastolic. There was no evidence of congestive cardiac failure.

The maxillary sinus washings returned clear. Chest plates were negative. Dental films showed complete absorption of the alveolar process about most of the teeth. Laboratory findings: Blood count, R.B.C., 4,140,000, hemoglobin 75 per cent, W.B.C. 12,400 with 70 per cent polymorphonuclear leucocytes. The urine showed two plus leucocytes. The blood Wassermann was negative, the blood chemistry normal and the blood culture negative.

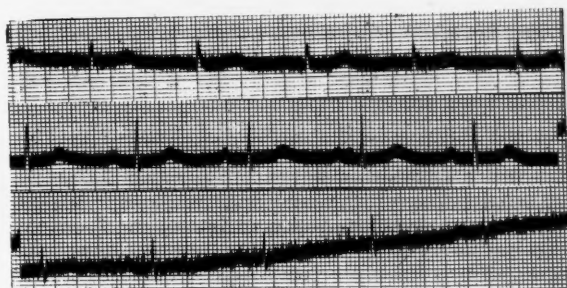


Figure 1

The patient was put to bed April 16, with a temperature of 102 degrees. By April 21 the temperature had become normal and the patient was discharged. No medication was given. The

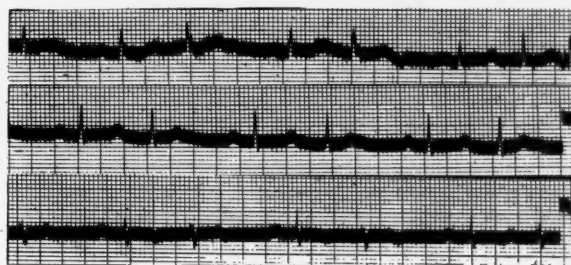


Figure 2

* Dr. Colvin graduated from the University of Toronto 1923. He is associated with the Henry Ford Hospital, limiting his work to cardio-respiratory diseases.

patient was seen again May 7 and was feeling perfectly well.

An electrocardiogram was taken April 18 (Fig. 1), which shows a 2:1 partial heart block, the alternate P waves being superimposed on the T waves. Every other beat is followed by a ventricular response, the PR time being .24 seconds. A second electrocardiogram (Fig. 2) was taken April 20. This shows still a partial block with a 3:2 ventricular response. After each dropped auricular beat the PR time is .20 seconds and before the dropped beat .33 seconds. A third curve (Fig. 3) was made May 7 and is entirely normal with a PR time of .14 seconds.

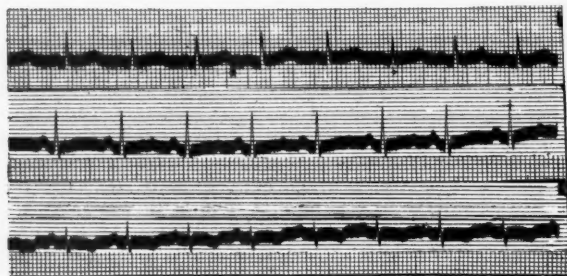


Figure 3

Case No. 2. (E. F. Case No. 107887): This was a young woman of 36 years, a librarian. She came to us April 16, 1928, stating that she had had a very sore throat five weeks previously lasting 10 days. Associated symptoms were general malaise and muscle pains; and she stated that she had not been strong since. There was no history of dyspnoea, palpitation or oedema. The past health had been excellent except for influenza in 1919.

Examination: Temperature 98 degrees, weight 116 pounds (estimated weight 143 pounds). There was no cyanosis or dyspnoea. The pupils were equal and reacted to light. There were four devitalized teeth present. A small amount of recurrent tonsillar tissue was noted. The maxillary sinuses transilluminated well. The thyroid isthmus was irregular. The lungs were clear. The cardiac apex impulse was 9 c.m. to the left in the fifth interspace. The relative cardiac dullness was 3 c.m. to the right and 10 c.m. to the left. The cardiac rate was 90, with a regular rhythm and a definite gallop heard only with the patient supine. The pulmonic second sound was accentuated. There was a soft systolic blow at the apex. The radial pulse was full, the artery walls soft and the blood pressure 110 m.m. systolic and 70 m.m. diastolic. Abdominal examination revealed nothing unusual. There was no oedema of the extremities.

Dental films showed no apical pathology. The blood Wassermann was negative, the urine clear, and the blood count, hemoglobin 77 per cent and

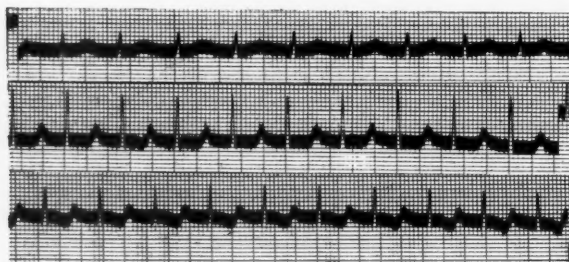


Figure 4

W.B.C. 6,800. An electrocardiogram was made on the date of examination (Fig. 4). This shows sinus tachycardia, PR time .28 seconds (delayed conduction) and T waves diphasic in leads II and III.

The patient was put to bed for 10 days and was asked to force fluids and to take luminal. April 30 she was still weak, but had gained 3 pounds. The heart sounds were normal and no gallop rhythm could be demonstrated even after exercise. An electrocardiogram (Fig. 5) shows

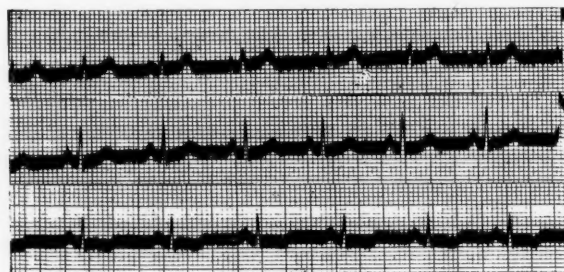


Figure 5

no tachycardia and a PR time of .12 to .13 seconds (normal). She was seen three weeks later when she was feeling perfectly well. The findings were unaltered.

Case No. 3 (J. F. Case No. 105070): This was a male of 21 years, an automobile polisher, seen February 26, 1928. He had always been healthy with the exception of an attack of influenza in 1919. He complained of a cold of three or four weeks duration, characterized by general malaise, fever, cough, yellowish sputum and sharp pain in the left anterior part of the chest. By the time he came to us the fever, anorexia and cough had gone. He still had some pain, but the real reason for consulting a physician was that he felt too weak to return to work. On questioning he stated that he noticed slight dyspnoea and palpitation.

Examination: Temperature 98 degrees, weight 146 pounds. The nutrition was good. There was no dyspnoea or cyanosis. The pupils were equal and reacted to light. The teeth were in good condition and the tonsils small. The paranasal

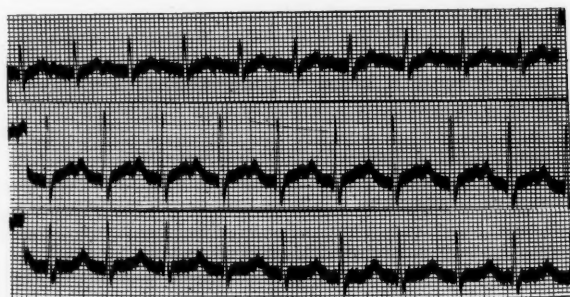


Figure 6

sinuses were clear. The thyroid was not enlarged. The lungs were clear. The cardiac apex impulse was diffuse, maximum 9 c.m. to the left in the fifth interspace. The relative cardiac dullness was 3 c.m. to the right and 12 c.m. to the left. The cardiac rate was 118. A sinus arrhythmia was noted and a gallop rhythm, heard better with the patient erect and during expiration. The gallop seemed to be presystolic in time. There was a systolic murmur present, of greatest intensity

at the pulmonic area. The radial pulse was dynamic in character, the vessel walls soft and the blood pressure 120 m.m. systolic and 70 m.m. diastolic. There was no evidence of congestive cardiac failure.

Six foot chest plates showed the cardiac measurements to be normal. An electrocardiogram (Fig. 6) taken on the day of examination shows sinus tachycardia and prolonged PR time .22 seconds (delayed conduction). The basal metabolic rate was plus 5 per cent. The blood Wassermann was 4 plus to Kolmer technic and with the Kahn test. The urine was clear. The W.B.C. was 10,400 with 61 per cent polymorphonuclear leucocytes.

It was felt that the myocardial damage evidenced by the gallop rhythm and the partial block was the result of either the acute upper respiratory infection or syphilis. The patient was advised to rest and was given careful doses of arsenic and mercury. March 10 the patient was re-examined, when the gallop rhythm was very definite and continuous. The PR time was .20 seconds (maximum of normal). March 24 and April 7 the findings remained unchanged except that the Wassermann had become negative. By April 21 the patient was feeling entirely well. The gallop rhythm could no longer be heard, even after exercise. The electrocardiogram (Fig. 7)

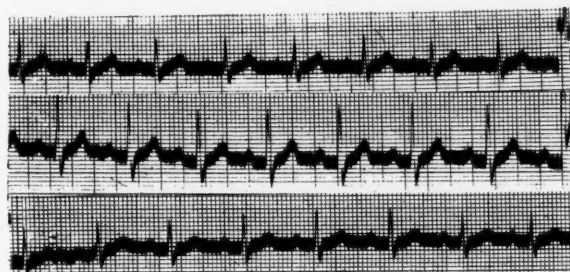


Figure 7

is entirely normal. It was felt that in view of the rapid improvement the myocardial damage was not the result of syphilis.

Case No. 4. (C. C. Case No. 39899): This was a man of 41 years. His former history was that of entire health with the exception of mastoiditis with a mastoidectomy at this hospital in 1924. The clinical examination was essentially normal and the blood Wassermann negative at that time. He stated, when seen by us May 8, 1928, that he had had a sore throat associated with mild joint pains and fever two weeks earlier. Since this infection he had suffered momentary sinking spells, the latest two days before we saw him. He had been seen at the Ann Arbor University hospital at the time of the acute illness, when it was noted clinically that every fourth beat was

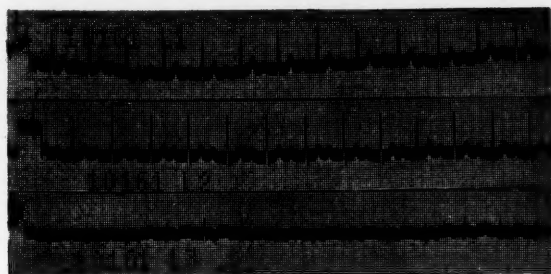


Figure 8

dropped. An electrocardiogram was taken there (Fig. 8), which we publish with their kind permission. This shows a prolongation of the PR time to .28 seconds (delayed conduction). The patient was advised to rest.

Examination, May 8: Temperature normal, weight 181 pounds. The nose and throat findings were normal. There were no devitalized teeth. There was no cyanosis and no dyspnoea. The lungs were clear. The relative cardiac dullness was 3 c.m. to the right and 11.5 c.m. to the left. The cardiac rhythm was regular, the rate 82. The sounds were normal and no murmurs were heard. The radial pulse was regular, the artery walls soft and the blood pressure 110 m.m. systolic and 70 m.m. diastolic. Abdominal examination was negative. There was no oedema. The electrocardiogram (Fig. 9) is entirely normal.

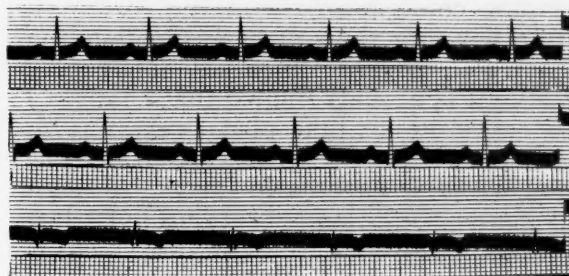


Figure 9

These four, then, are cases of acute upper respiratory infection, probably streptococic, of too short a duration to be attacks of acute rheumatic fever. They occurred during a more or less general epidemic of influenza-like infection associated with marked prostration and they partook of this general character. We had no chance of finding leucopenia, as all were seen after their acute illness. All four came to us because they did not regain strength after an ordinary infection. The rapid clearing of the findings strongly suggests that the damage to the heart was toxic rather than structural. Atropine was not used to determine vagal influence. The toxic effect is particularly noticeable, as one would expect, in the conduction system, though the symptoms of weakness and dyspnoea and the presence of a gallop rhythm in two cases suggest general myocardial damage. This evidence of the effect of infections on normal hearts makes it easy to understand why so many patients with lessened cardiac reserve date their downfall from an acute infection. The other point worthy of stress is that ordinary upper respiratory infections demand due deference, even though they occur in formerly healthy people. This is particularly true if they are accompanied by unusual prostration and prolonged convalescence. Unusual tachycardia, gallop rhythm and dropped beats must be looked

for in such cases and if found, the proper cardiac protection given. An electrocardiogram, if obtainable, may be of much assistance. It is probable that these cases would have gone on to full recovery without the additional protection advised, but the principle of giving physiologic rest to any organ during acute damage, is a good one.

In the literature we have been able to find numerous reports of varying degrees of heart block associated with rheumatic fever, especially while under digitalis therapy (1), (2) and (6). Cohn and Swift (2) in an article on the electrocardiographic changes in rheumatic fever, say, "In other infectious diseases" (other than rheumatic fever) "such as lobar pneumonia, it is already known that changes in the curve do not take place; certainly not with the frequency with which they have been found in rheumatic fever." Although we realize that many observers must have seen such cases as we have described, we have been able to find only four such reports. One of these was in a child of two years with rheumatic heart disease who had a high grade of partial heart block during an acute upper respiratory infection, (4). A second was a case of rheumatic heart disease in which there was prolongation of the PR time during an acute tonsillitis. A third was a case of pneumonia in which the patient, 78 years of age, developed complete auriculoventricular dissociation and recovered with normal sinus rhythm (7). The fourth was in a case of amoebic dysentery in which, during the acute stage of the disease, a complete heart block was demonstrated by venous tracings. After treatment with emetine the patient recovered with a normal sinus rhythm (8).

SUMMARY

In four patients with previously normal hearts we have seen partial heart block and other evidence of toxic myocarditis associated with acute upper respiratory infections, apparently not attacks of acute rheumatic fever.

The cardiac involvement was in every case temporary.

In all four cases prostration was a symptom more marked than would ordinarily be expected.

The need of watching patients with upper respiratory infections for the development of signs of cardiac damage was pointed out.

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DISCUSSION

Dr. G. H. Wood (Detroit): I just want to emphasize one point in connection with these two papers which are very practical. In these days when so many types of therapeutic apparatus are being offered to the physicians, especially general practitioners, it would be well to keep in mind that while these things may help the practice of medicine from the standpoint of pleasing the patients and getting money, the thing which really benefits the patients most would be for the physicians to pay especial attention to diagnostic equipment; or, if that is too expensive for them, they should familiarize themselves with the various important diagnostic processes and obtain that aid from specialists.

Dr. Douglas Donald (Detroit): I think we are far too apt to treat our upper respiratory infections rather carelessly, especially during the convalescent period. Their course of illness is apt to be only three or four days perhaps at the utmost, and we rather carelessly dismiss them after one or two days' convalescence. We should learn that the convalescent period is as important from the therapeutic point of view as is the acute period of infection.

Chairman Jennings: Is there any further discussion?

I feel myself that both of these papers are of great importance. I have been particularly interested in the changes of the electro-cardiogram occurring in the early stages of arterial degeneration.

We have found a fair number of patients having hearts that were rather normal to examination, not seriously elevated blood pressure, and had these patients suddenly go into a coronary thrombosis. In these patients we have found evidence of myocardial damage in the electro-cardiogram.

It is certainly important to be able to detect these very early changes when we cannot detect them either by x-ray or by physical examination unless we accept as serious the most apparently insignificant physical signs.

Dr. Colvin's paper gives us an additional viewpoint on these early changes in the infectious diseases which, I think, is of fully equal importance.

Dr. Chester, will you close?

Dr. John L. Chester (Detroit): I think it is important to keep in mind the classification of heart diseases etiologically, pathologically and functionally, and the changes of the mechanism of the heart beat.

In the etiologic classification, we notice rheumatic heart disease, thyroid heart disease, heart disease due to hypertension, heart disease due to arteriosclerosis, heart disease due to endocarditis, tuberculosis of the pericardium, and acute myocardial changes occurring in rheumatism, scarlet fever, influenza and other infections, and very often those changes can't be detected except by instrumental means.

I think Dr. Colvin's paper was very important because it illustrates very well changes brought about in acute upper respiratory phases. As Dr. Donald has said, those patients should not be dismissed lightly, and if there is any question, they should have electro-cardiographic tracings made.

The point I wanted to bring out was the im-

portance of electro-cardiograms, and the paper will be published in full. It is rather a lengthy paper and would take me over an hour to read it if I had the time. I have been struck over and over again with the many changes that we have found in patients past middle age who apparently had normal hearts, at least on physical examination.

Dr. Leslie T. Colvin (Detroit): I just want to say in contradistinction to the point of Dr. Chester's that two of these four patients had in the clinical examination evidence of myocardial damage of some kind. We could not tell they had heart-block, but from the gallop we knew they had myocardial damage. We knew that anyone who has been doing heart work must have seen these same things we have been talking about.

THE TREATMENT OF LOBAR PNEUMONIA

HERMAN H. REICKER, M. D.**

ANN ARBOR, MICHIGAN

The first principle in the treatment of lobar pneumonia is to realize that it is an acute self-limited disease, for which there is no specific cure. The death rate of pneumonia has remained rather constantly between 10 and 20 per cent despite an increasing knowledge concerning the etiology, the use of X-ray in following its course, and studies upon the advantages of various chemical and specific curative agents.

Pneumonia varies in its severity from year to year and in different localities during the same year, and with this variation we see differences in the mode of onset, in the type of causative organism, and in frequency of complications. In the history of cases we find the onset about equally divided between that following an upper respiratory infection, and that of a sudden chill, pain in the chest, cough and fever. The physical signs are always those of consolidation usually in one of the bases, with dullness and clear tubular breathing, often heard best by direct auscultation; this with the presence of rusty or blood tinged sputum assures the diagnosis. Many variations of this picture may be seen, but the general plan of treatment remains the same.

Since the disease is self-limited, the object of treatment must be to maintain life until the process runs its course.

The specific measures are of two kinds: (1) those designed to combat toxemia, which is the outstanding manifestation of the process, and (2) those which are expected to act directly on the invading organism or its products. Of these, the first is by far the most important.

The toxemia of pneumonia manifests itself by fever, cyanosis, a depression of cir-

culatory and respiration efficiency, abdominal distension and sometimes delirium.

Our first effort in treatment must be directed toward support of the heart and this is best done by the administration of digitalis. Especially in patients of middle age and beyond, digitalis is definitely indicated in lobar pneumonia. The drug may be given by mouth as the tincture, and the total dose estimated at 2 minims* per pound of body weight. Digitalis should be given in such a way that at the time of the crisis (about the fifth or sixth day) the heart is fully prepared to meet this emergency. If the patient is seen on the second day, for example, one drachm may be given each day until the calculated dose is administered; or the method popularized by Eggleston may be used, that is, giving half the calculated dose at once and then half the remaining amounts each day. Usually 3 or 4 drams are sufficient, and then the dosage may be cut to 15 minims twice daily, in order to keep the heart under the influence of the drug.

Equally important with medication in protecting the circulation is the matter of complete rest for the patient. In severe cases the patient should not be permitted

* From the Medical Service of the University Hospital, Ann Arbor, Mich.

**Dr. H. H. Riecker graduated from The Johns Hopkins Medical School in 1923. Interned on the Cornell Division of the New York Hospital two years and was resident physician at the Barnes Hospital one year. Has been instructor in internal medicine here for three years.

* The amount should be measured, not as "drops" of which there are about 30 in one cubic centimeter, but as minims of which there are 15 in one c.c.

to help himself in any way. The services of a well trained nurse should be secured because in the encouragement to sleep, and in the general comfort of the patient, efficient nursing care is of inestimable value. Sedatives such as luminal should be used for restlessness in every case. The use of morphine will be discussed later.

The toxemia must be combatted by means of an adequate intake of water—and we should insist on the administration of 4,000 c.c.s daily to the average adult patient. Part of this fluid intake may be in the form of food such as milk and sweetened fruit juices. Diet is unimportant in a disease of so short a duration except in that large amounts of carbohydrate tend to increase abdominal distension.

Cyanosis is always present in lobar pneumonia, seen most easily in the nail beds, and its degree is usually an indication of the severity of the disease and the extent of the pulmonary involvement. Not uncommonly the insufflation of oxygen is useful for short periods (15 minutes in each hour) for several days. Commercial welding oxygen may be used to advantage in hospitals and for one who sees several cases of pneumonia each season, the purchase of a portable Barach apparatus (1) for its economical administration is justifiable. Oxygen given by means of a nasal catheter or funnel is less efficient and always extravagant. However, in emergencies the nasal catheter may be used with definite success if the nose of the catheter is placed just back of the soft palate and the stream controlled by passing the gas through a bottle of water. The rate of flow should be determined by the immediate results obtained, usually 2 liters per minute is sufficient. The beneficial effects of oxygen consist of (1) diminution of cyanosis, (2) slowing of pulse and respiratory rate, (3) decrease in delirium and restlessness and (4) general symptomatic improvement. The use of oxygen is a definite forward step in the treatment of pneumonia and means of giving it efficiently should be available in every hospital.

In selected cases, cold sponging of the limbs and anterior surface of the body may be of value as a general stimulant. The procedure is certainly indicated when the temperature reaches 104°-105°, but special precautions must be taken not to draw upon the patient's strength. Patients with pneumonia seem to do better in a cool atmosphere, and the outdoor treatment has been used with some success, in any event the air of the room should be quite cool.

One of the most distressing complications of pneumonia is abdominal distension, and upon its successful control depends the outcome of a large percentage of patients. This cannot be too strongly emphasized, and the physician's attention should be directed to it from the onset of the disease. Its control may be met in various ways, but it is preferable to rely on physical rather than medicinal measures. One of the best methods is that of the turpentine stupe combined with a rectal tube. The hot turpentine stupe may be applied for 20 minutes several times daily, it is less weakening to the patient than repeated enemas, although occasional use of the latter may be necessary as an adjunct, and should be a routine measure every other day.

Pituitrin and pilocarpine may be given for distension but with indifferent success, and usually a second or third dose of pituitrin has no value.

The local treatment of cough and pleural pain is important and here again caution is necessary. The chest pain may be controlled with a flax-seed poultice, sometimes a hot water bottle, but occasionally small doses of codein are advisable. The use of a chest binder seems to embarrass respiration and may be quite detrimental. When cough and pain are persistent small doses of morphine (1/8 grain) may be necessary; larger doses are distinctly contraindicated because they tend to promote abdominal distension. Several prominent clinicians (Cole) (Cecil) advocate the administration of morphine to patients with lobar pneumonia, but the effects of this drug should be understood thoroughly before it is used indiscriminately (and it should not be used routinely).

Davis, working in the Rockefeller hospital, recently has studied the effects of morphine in these cases. He was able to adduce definite evidence that morphine reduces the respiratory rate, causing a decrease in the oxygen content of the arterial blood. However, the relief of pain may offset this effect by facilitating deeper breathing and better ventilation of the lungs. Davis found, further, that in the presence of extensive pulmonary involvement with diffuse rales, the use of morphine may result in a dangerous degree of anoxemia.

In the field of specific therapeutic agents there is great promise, but as yet no very definite results. When the type of pneumococcus can be ascertained quickly by the mouse method, type I antiserum should be

used. Various combined antiserums have been used, and are at present on the market. Cecil recently has reported on the use of the type I and type II antipneumococcus serum of Cole, Huntoon's (Mulford) antibody solution, and Felton's concentrated serum. These preparations have reduced the mortality of cases of type I and II pneumonia, but the practical application of specific treatment is handicapped by certain defects in the preparation. All must be given early to be effectual for the specific types. Cecil reports that the Huntoon antibody solution still lacks sufficient concentration, while Felton's antibody extract has the concentration but lacks the entire freedom from horse serum which Huntoon's solution possesses. A thoroughly satisfactory specific antibody treatment has not been achieved, but each succeeding year brings the problem nearer solution, and where typing facilities are available the treatment may be used under well controlled conditions.

Chemotherapy has been tried in large series of cases and this procedure is based upon the fact that quinine dissolves the pneumococcus in extremely dilute solution. This type of therapy may be used with the distinct understanding that it is still of unproven value. Numoquin base, (Optochin Base) is now supplied, and it should be given with milk before and after each dose, in order to neutralize the deleterious effects of the gastric acid on the drug, which in turn produces optic atrophy in a certain number of cases.

In summing up the treatment of lobar pneumonia the physician's orders would be about as follows:

Strict rest in bed in a cool room to include assistance in use of bed pan and in drinking fluids.

Force fluids to 3,000-4,000 c.c.s daily.

Cold sponging for temperature over 104-5°.

Local applications to chest for pain.

Codein gr. 1/4 for cough, if excessive.

Oxygen administration when necessary.

Turpentine stupes for distension with soapuds enemads every other day.

Digitalis to full therapeutic doses at time of crisis.

Antipneumococcus serum or their derivative in selected cases.

It is realized that many drugs have been and are still employed in the treatment of

pneumonia, but only those should be used whose value has been proven in combatting toxemia, in supporting the circulation, and in securing absolute rest for the patient. Alcohol is only necessary for those who are habitually addicted to its use.

Atropin is of little value in controlling pulmonary secretions because the doses necessary may be detrimental to the heart. Ammonium chloride as an expectorant is of value chiefly during convalescence, if at all. Fever mixtures often depress the heart. Strichnine must be given in large doses as a stimulant and even then its beneficial action is often doubtful; caffeine is much more certain in this respect. The routine use of alkaline medication can hardly be said to have specific value because acidosis is not present in every case and definite harm may be done unless its administration is controlled by frequent estimation of the CO₂ combining power of the blood. Routine blood pressure estimations may be dispensed with in most cases, the blood pressure is of little definite prognostic significance, while the pulse rate, temperature, degree of cyanosis, and distension are more particularly to be observed. Several observers have placed considerable reliance on the quality of the second pulmonic heart sound as poor prognostic sign if it becomes indistinct and muffled. Here again it seems that other manifestations of toxemia are of more value in determining the severity of the disease.

When we consider that the pneumonia death rate (about 100,000) generally is now equal to that of tuberculosis, the subject of the effective treatment of lobar pneumonia becomes highly important. Every physician should be thoroughly equipped to meet this situation with confidence in tried measures, and with a knowledge of the fundamental conception of the disease. Our mainstay in treatment at present is in the routine physical and medicinal procedures rather than in specific antiserums and chemical products, although our chief hope for the reduction of mortality lies in the development of satisfactory antiserums.

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HYPOTHYROIDISM WITHOUT MYXOEDEMA; ITS RECOGNITION AND TREATMENT

RICHARD M. McKEAN, M. D.*
DETROIT, MICHIGAN

Among the groups of patients passing through an office and clinic practice, we have become especially interested in a type approaching in signs, symptoms and laboratory findings, the true myxoedema, but differing from the latter principally in the absolute absence of the characteristic non-pitting oedema that marks that affection. In a series of two thousand cases reviewed, fifty examples of the above have been found, and these form the basis for this paper. Forty-six of the fifty were between the ages of eighteen and fifty, thus eliminating signs and symptoms often found in the extremes of life which might confuse the picture.

The chief presenting symptom in most of this series was a distinctive mental and physical fatigue—a pronounced inertia—marked usually by its morning peak, with an increasing energy curve as the day wore on, until evening found them, as it were, "on the crest." Associated with this fatigue in a substantial number of cases were one or a number of the following symptoms:—sluggish memory, inability to concentrate, dull headaches, constipation, dyspnoea on mild exertion, moderate indigestion, myalgias or arthralgias, disturbed menstruation, usually on the scant side, and occasionally mild impairments in the special senses, and a loss of libido. Common to the group and usually suggesting the lowered level of heat production were dry skin, susceptibility to falls in temperature, numbness or chilliness of the hands and feet, low buccal temperature, slow pulse rate and low blood pressure. Physically other changes in the integument were not uncommon, notably hair loss, an increasing tendency to dental caries, skin manifestations such as eczema and urticaria, and an increasing adiposity with definite predilection for the supraclavicular and upper dorsal areas and the upper arm and legs. From the laboratory side—a secondary anaemia, mild leukopenia, and relative mononucleosis were not unusual, and of course the one finding common to the entire group—namely a definite and repeated basal metabolic rate determination below the proscribed normal limits.

Physical examination in every case failed to revail other pathology which was capable of explaining the presenting findings, and we felt justified in considering these individuals as hypothyroid, and subjecting them to closely scrutinized thyroid therapy.

* Dr. Richard McKean, Internal Medicine, A. B. 1916 University of Michigan, M. D. 1919 University of Michigan, Attending Physician and Director of Metabolic Unit, Receiving Hospital, Assistant Professor of Medicine, Detroit College of Medicine, Junior Physician, Harper Hospital.

REGIONAL RESUME OF SIGNS AND SYMPTOMS:— SYSTEMS—Hypothyroidism without myxoedema.

Signs and symptoms.

NERVOUS—Headaches—60%, usual frontal or occipital.

Memory and concentration—Poor in 54%.

Sleep—Too easily induced in daytime, though night insomnia common.

Special senses often mildly impaired.

Sensorium often sluggish.

NECK—Sense of fullness or constriction common.

Thyroid may or may not be palpable.

CARDIORESPIRATORY—Dyspnoea on mild exertion common.

Predominating bradycardia.

GASTROINTESTINAL—Appetite usually impaired.

Vague indigestion—Possibly explained by frequent hypoadicidity.

Constipation almost the rule.

GENITOURINARY—Menses regular but scant in 66% of cases.

Lessened libido common.

HAEMATOPOETIC—Commonly secondary anaemia with mild leukopenia and relative mononucleosis.

INTEGUMENTA—Skin dry in 75%; urticaria, furunculosis, and eczema not uncommon; perspiration scant.

Teeth tend to caries.

Hair usually dry, and tends to fall out.

EXTREMITIES—Coldness and numbness of distal extremities frequent.

Arthralgias and myalgias common.

FAT METABOLISM—52% at normal weight for their height, though obesity common with particular predilection for supraclavicular area, upper dorsal, upper arm and leg, and upper border of trapezius muscles.

GENERAL—Hypothermia—Composite 97.7.

Hypotension—Composite 111/70.

Fatiguability marked in 90%.

Susceptibility to fall in atmospheric temperature.

DIAGNOSIS

Since a similar train of symptoms may be produced by other means—particularly chronic foci of infection, blood dyscrasias, cardiac disease, drug habituation, and long-continued overwork, underrest, and undernutrition; a thorough clinical and laboratory survey is of paramount importance. Since hypothyroidism—from its frequent nebulous character—should be, like hysteria and the minor neuroses, a diagnosis primarily of exclusion, it is only when other factors have been ruled out, and we are left with a low metabolic reading, (performed under basal conditions and in the hands of a trained, intelligent operator), that this should be taken as explanatory, and entered as our clinical impression.

False low readings are rare with the Roth modification of the Benedict apparatus—the machine most commonly in

use—for all errors of faulty preparation, and technique make for mistakes on the plus side.

Other disturbances in the endocrine system, such as hypopituitarism, hypogonadism, Addison's disease, etc., will occasionally present confusing pictures. But a careful analysis of body measurements, distribution of fat deposits, symptoms and metabolic rate will usually suffice to differentiate them, though sometimes therapeutic trial must be made to determine the importance of these factors, in a possible pluriglandular syndrome.

TREATMENT

Once the diagnosis is determined, treatment becomes a relatively simple matter, if a few points be born in mind; and if persisted in, its results furnish a very happy chapter in clinical therapeutics.

In the last ten years, thanks to an immense amount of pharmacological investigation, a definite standard of potency for thyroid gland substance has been laid out, namely, that to conform to pharmacopoeal standard, it shall contain 0.17 to 0.23% of iodine in thyroid combination. However, even with this distinct advance, variations in clinical effect still exist. It is well, therefore, to choose some one preparation of proven pharmacologic activity and to use this for clinical trial. If its results on known cases are satisfactory, this preparation should be continuously used on all individuals of this type. Only in this way may definite conclusions be drawn from any results obtained.

The dried gland—official in this country—is 4-5 times the strength of the fresh gland, official in England (which, however, is stocked as prepared by Burroughs, Wellcome & Co. in many of our local drug stores.) Either may be very satisfactory, providing the relation between them be born in mind. Thyroxin—a pure crystalline substance isolated by Kendall in 1914 from the thyroid glands of sheep and hogs, is the third preparation in rather common use, particularly at the Mayo Clinic. Its chief advantage lies in the increased accuracy of dosage possible, and in the fact that it may be given hypodermatically, making administration possible when there is failure of absorption of thyroid substance given by mouth. Its disadvantage is its added cost over the gland substance proper which is in most cases perfectly satisfactory. With one exception, we have used the dessicated gland throughout our observations.

While the initial dosage may be gauged

roughly by the degree of depression of the metabolic level, it is well to begin cautiously with a dosage of $\frac{1}{2}$ to $1\frac{1}{2}$ grains daily, given preferably on an empty stomach to aid absorption, and when possible twice a day, (as with the morning and evening tooth brush, to lessen the number of forgotten or missed doses.) Toxic effects are not uncommon, and sometimes unavoidable, coming in the main during the period of most precipitate rise in metabolism, and consisting most commonly of headaches, muscle or joint pains, palpitation, dizziness, diarrhea and occasionally nausea and vomiting. By avoiding an over-enthusiastic early dosage, these ill-effects may be minimized or missed entirely. Even when present, however, they are of brief duration and cause no real harm, if the gland be stopped at once, and taken up in reduced amounts after the subsidence of symptoms.

More often than not, the initial dose will be inadequate, as a check-up metabolic reading in seven to ten days will reveal, and increasing amounts may be added with repeated tests at one to two-week intervals, until a normal level be reached and maintained, at which point this determined amount is made a routine and the interval between metabolic checks stretched out to once monthly, later once or twice yearly. For it has become a food and not a medication, and must, in all but a few children and very young adults, be continued indefinitely, possibly always. We have seen so many in this past few years who have been set upon their feet by adequate thyroid intake, only to lag, and report back again after months off of the gland in as bad condition as ever, and so few in whom a change in dosage—either up or down—was necessary after the initial requirement was settled, that we feel the need of emphasis on this point. In our series a composite curve showed an average low reading of minus 22%, an average final level of minus 1%, on an average daily dosage of 3.2 grains.

RESULTS

To attempt to calibrate results which are so predominately of a subjective character, is manifestly exceedingly difficult, and lays one wide open to the charge that a gross psychic element may have entered into their production. Nevertheless, by far the larger number of the individuals under discussion, had previously been subjected to psychotherapy of one sort or another, intentional or unintentional, and

surfeited with medications far more malodorous and suggestibly distasteful, before starting on our unassuming brown tablets. Yet the increased mental and physical vigor, the returning warmth to the extremities, the cessation in indigestion, muscle and joint pains, and headaches, and the resumption of normal, otherwise unaided, bowel movements, had never been attained before. Objectively, we may point to the rise in blood pressure, pulse rate and temperature, the decreasing dryness of the skin and the weight loss and redistribution, which previous strenuous dietary restriction had failed to bring about. An observant dental confrere has sent in a number of people in whom an unusual and progressive dental caries was taking place, without obvious oral cause. A substantial proportion of these presented signs and symptoms of a hypothyroid state, and the condition was markedly improved coincident to the institution of thyroid therapy. One, a young lady in the early thirties, had had fourteen definite areas of caries develop in 1926, even though under bi-monthly observation. With the eliciting of hypothyroid traits and a metabolic rate 21% below normal, she was placed on adequate doses of thyroid, and in the succeeding twelve months, on an otherwise identical routine, showed but two small carious foci. Several seeming paradoxes have arisen. For example, one individual in the late menopausal zone, presented a moderate hypertension, with signs of thyroid lack. On thyroid therapy, the pressure fell within normal limits, and remained there so long as thyroid therapy was continued, to rise again when it was stopped. A considerable number of a definitely undernourished group were first able to consistently gain weight after they were on thyroid. A young lady reported recently, had run an absolutely unaccountable temperature rise, which fell to normal on thyroid, and rose again at its discontinuance. These are exceptional results contrary to those usually expected. In the main then thyroid therapy in carefully selected cases, will, if given in adequate dosage, and over sufficient length of time, bring about pleasantly conclusive results, sufficient to warrant a continued lookout for members of this group, and the institution of the indicated therapy in them.

DISCUSSION

We have presented a symptom complex, which we have called hypothyroidism without myxoedema. Though this syn-

drome has acquired a somewhat belated recognition in medical journals of the past year or two, it still seems to warrant more general attention than it has attracted hitherto. Kocher undoubtedly had some such group in mind forty years ago when he spoke of thyropeia and other continental writers when they referred to the "forme fruste" of myxoedema. But each name indicated an abortive or early stage of myxoedema, whereas many of its manifestations are distinctly different and yet with basal metabolic levels equally depressed. The appended table will show some of the conflicting points.

Comparison of signs and symptoms of:

MYXOEDEMA (KOCHER)	HYPOTHYROIDISM WITHOUT MYXOEDEMA
1—Absence or atrophy of thyroid.	Sometimes non-palpable, but frequently diffusely increased in size.
2—Slow, small, regular pulse.	Good quality; usually slow, but may be normal or rapid.
3—Vasomotor system negative.	Usually unaffected.
4—Apathetic and expressionless.	Usually normal in appearance.
5—Narrow lid-slits.	Normal.
6—Slowed metabolism.	Same.
7—Thick, non-transparent, dry, wrinkled, and desquamated skin.	Frequently dry; otherwise negative.
8—Slow digestion and excretion; anorexia.	May be similar.
9—Short, thick, fingers, often broad at the ends.	Usually normal.
10—Drowsiness and sound sleep.	Often drowsy by day and poor sleep at night.
11—Dulled sensation, apperception and action.	Mild changes of same nature.
12—Poverty of thought; apathy; lack of feeling.	Mild mental sluggishness; memory poor.
13—Clumsiness.	Not notable.
14—Stiffness of extremities.	Occasional arthralgias or myalgias.
15—Retarded bony growth; bones short, thickened or deformed.	No notable change.
16—Constant feeling of cold.	Common to many.
17—Slow, deep breathing.	Not notable.
18—Obesity.	About 50% overweight, and the remainder at or below normal.
19—Senile appearance even in the young.	Rare.
20—Typical non-pitting edema present, disappearing as metabolic raised by thyroid administration to 17-18% below normal at which point it disappears. (Plummer and Boothby).	Edema never present, even when metabolic rate 25-35% below normal.
21—Rare in this country, only 10 cases being seen by Osler in his 16 years in the Johns Hopkins clinic.	Common; 78 cases in two years, ordinary run of office patients.
22—From 2-10 pages devoted to it in standard modern text-books and systems.	Either not mentioned or granted a scant few lines at most.

It would seem, therefore, that we are dealing with a clinical entity, differing not so much quantitatively as qualitatively, and suggesting that some different process has gone on in the thyroid, gland of the hypothyroid without myxoedema, than that of the myxoedema itself. The nature of this change and its etiology is unde-

terminated. Chronic infection, particularly of the upper air passages, probably plays a part. It seems to us not impossible that the almost routine use of iodine in our table salt, may furnish a possible source for the change and account for the apparent marked increased incidence in late years. We have seen a few individuals with unstable thyroid mechanisms and presenting originally typical changes on the plus side go over under prolonged administration of Lugol's solution, to the minus side, with eventual production of symptoms like those discussed previously in this paper. Why may not a similar circumstance occur with the sodium iodide

added to many salts? We are trying to determine at the present time whether or not this actually does occur. At present it is only a theory and as such we must leave it!

CONCLUSIONS

1. A train of symptoms and signs have been described, combining to form what we believe to be a definite clinical entity, the frequent occurrence and splendid therapeutic results of which tend to warrant discussion.

2. Its treatment has been traced, pitfalls noted, and results analyzed.

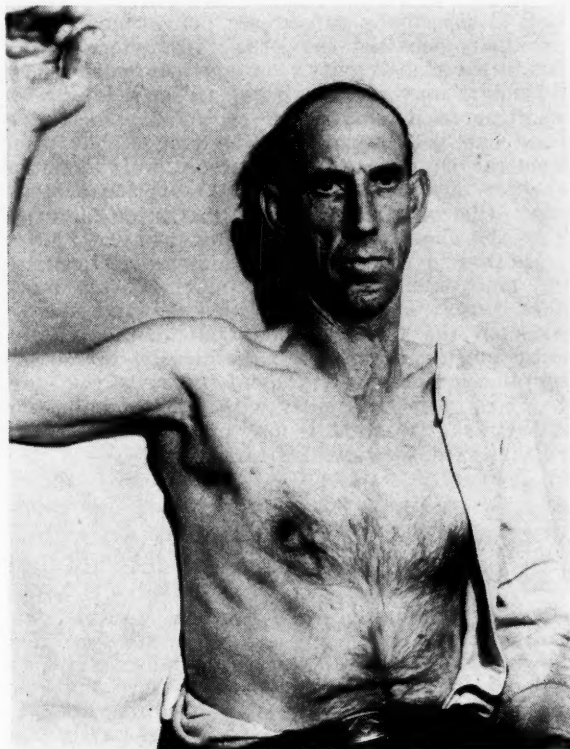
3. Iodides in our table salt has been mentioned as a possible etiological factor.

TULAREMIA—CASE HISTORY

ARTHUR M. SHAEFFER, M. D., F. A. C. P.*

(Jackson Clinic)
JACKSON, MICHIGAN

D. E. P., age 40, dressed rabbits at the West Market in Detroit, November 15, 1928. He cut the tip of the right thumb. Three days later he had a very severe headache, chills, fever of 102.



The cut was red, swollen, and the arm was tender, with a red streak running to the axilla, a painful mass was noted in the axilla. When seen the epitrochlear and axillary glands were swollen

greatly. The veins were hard, and a red streak was noted from the hand to the axilla. An ulcer developed at the site of injury to the thumb. The patient was quite ill, and blood was taken for an examination. The serum was found by the U. S. Public Health Service at Washington, D. C., to give a positive agglutination for bacterium



* Dr. A. M. Shaeffer graduated from Ohio State University in 1917. He is a Fellow of the American College of Physicians, teaching clinical medicine at the Mercy Hospital Nurses Training School, also, on the staff at the W. A. Foote Memorial Hospital. His specialty is internal medicine.

tularensis in dilution of 1-640. The Michigan Department of Health reported a positive agglutination of his serum, in dilution 1-640 in 30 minutes at 56 degrees. A blood count was done. The R. B. C.—5,168,000 W. B. C.—13,250. Blood smear, red blood cells normal in size and shape, count 62% polys.—19% lymph.—1.9% endothelial. count 62% polys.—19% lymph.—19% endothelial.

The patient was confined to bed for about two weeks. A wet dressing of alcohol, boric acid and phenol—or "Ochsner's Dressing" was kept on the granuloma. No surgical intervention was instituted because we felt from the first that we were dealing with a ulceroglandular type of tularemia, and the observations of other men (Francis, Simpson, et al.) indicate that surgical interference with the primary lesion is contra indicated.

Our patient has been "temperature free" since December 12th, and the ulcer is slowly healing. He has lost about 10 pounds in weight since his infection.

Sporotrichosis, like nodular lymphangitis over the forearm, developed and the axillary mass enlarged to the size of a small orange. Fluctuation was noted—a large needle was carefully inserted and 45 c.c. of pus was aspirated with a luer syringe December 28, 1928. No organisms were found on direct smear, but a guinea pig was inoculated and it died in four days of tularemia infection. The axillary lesion has caused no more trouble although the glands are enlarged and hard. At the present time, January 12, 1929, the patient is still very weak, although the primary lesion is practically healed.

INJURIES TO CHEST

L. R. Sante, St. Louis (Journal A. M. A., Nov. 24, 1928), considers the pathologic conditions produced by trauma to the chest and indicates the role played by radiology in their detection. Fractures of the ribs rarely cause serious injury to the lung. If fractures are multiple and there is wide separation of the fragments, injury to the lung and hemothorax may occur. Subcutaneous emphysema usually does not present a serious complication in injuries to the chest. Occasionally, however, air may be forced under the fascia planes and may envelop the entire body, causing death. Traumatic pleurisy exists as a definite clinical entity and does not show any different radiographic appearance than ordinary thickening of the pleura. Hemorrhage into the lung following injury by stab wound or gunshot wound is one of the most frequent results of injury to the chest. Radiographically it appears as a small blotchy area of consolidation in the lung. Hemothorax associated with injury to the lung is one of the most serious and most frequent complications of injury to the chest. Radiographically, hemothorax may present some points of difference from ordinary effusion in the chest. The blood seems to form a thin layer over the entire lung and does not gravitate to the base of the chest. It does not cause the same amount of obscuring of the lung structure throughout the chest and shows uniform involvement of the apexes—a condition not seen in ordinary effu-

sions. Mediastinal displacement rarely occurs and when it is present is a grave omen. A gunshot wound or stab wound of the chest may cause injury to the lung without leaving roentgenographic evidence of any abnormality for several hours after trauma. Subsequent hemorrhage into the lung substance may become evident several hours later, however, and bleeding into the pleural cavity may continue for days until the entire chest is filled with blood. For this reason it is well to make repeated examinations during the first week after injury to the lung to detect any subsequent hemorrhage. Blood ordinarily does not show the normal tendency to clot in the chest cavity, consequently small bleeding points may continue to bleed for a long time, resulting in extensive loss of blood. Unchanged blood can be absorbed by the pleura, but when chemical changes have occurred it is doubtful whether any great amount of absorption ever occurs. Chocolate colored fluid has been aspirated from the chest three months after injury. If it is allowed to remain there is danger of infection and empyema. Traumatic pneumonia is much more rare than traumatic pleurisy and usually takes on the form of lobar pneumonia. Traumatic pneumothorax is a relatively infrequent complication of other types of injury to the lung. It occurs more frequently with stab wounds than with gunshot wounds. It may occur spontaneously from apparently trivial injury.

SWEDISH SURGERY OF 5,000 YEARS AGO STUDIED

Trepanation of skulls and other major operations were performed in Sweden 5,000 years ago, it has been brought out by excavations made on the Swedish island of Gothland in the Baltic Sea, by Dr. Gustaf Nihlen, archaeologist of Stockholm. On the site of the present city of Visby, "the city of ruins and roses", he found remains of an ancient fishing village dating from the stone age. Examining a number of human skeletons, Dr. Nihlen discovered that experienced surgeons must have existed at that period. Neat, round holes were discovered in several skulls, showing that the art of trepanning as a Cure against various kinds of ills was known. In performing these delicate incisions, the surgeons used an ordinary stone auger or drill, and it appears that in most cases the patient survived the operation. Dr.

Nihlen's examinations also disclosed numerous abdominal conditions, excrescences and deformities, showing that this prehistoric race must have been afflicted with rheumatism of the joints and similar diseases. These were probably brought on to a great extent by the hard climate and partly perhaps due to the exclusive meat diet, which also has been found to cause deformations of the jaws. It appears too, that the Swedes in those days must have suffered very much from decayed teeth and toothache. Another disease which evidently haunted ancient Visby and its inhabitants was rickets, and frequent epidemics seem to have ravaged the population. The death rate among children must have been very great.—Science Service.

Annual Conference of Secretaries of Component County Medical Societies, Michigan State Medical Society

January 16 and 17, 1929, Palmer House and A. M. A. Building
Chicago, Illinois

WEDNESDAY EVENING SESSION

January 16, 1929

The opening meeting of the Mid-Winter Session of the Council of the Michigan State Medical Society, and Joint Dinner and Conference of the County Secretaries, was called to order in the Palmer House, Chicago, January 16, 1929, at seven o'clock, Dr. F. C. Warnshuis presiding.

Chairman Warnshuis: Gentlemen, representing the Council of the State Society, I consider it a distinct pleasure and a privilege to welcome the members of the Secretaries Association of our Michigan State Medical Society as well as the members of the council to this annual conference of County Secretaries which we are holding this year in Chicago at the headquarters of the American Medical Association.

It is customary, as a rule, that each dinner or gathering or occasion like this should be graced with an invocation. We weren't able to secure any pastor who would accept the guarantee of the Secretary of the Michigan State Society as to the morality of the profession in Michigan to come here this evening and utter an invocation. So in place of the invocation I am going to call upon that universal individual, Morris Fishbein, the editor of the Journal of the American Medical Association to issue the invocation for this meeting tonight. Dr. Fishbein. (Applause).

Dr. Morris Fishbein: Secretaries of the Michigan County Medical Societies: I suppose I ought to begin at once by telling about a time when I was out in Oklahoma and a very important individual, namely, a secretary, was just giving up his work. He had made a very beautiful address and when he had finished one of the members stood up and said, "Mr. President, this inspiring address by our retiring secretary marks a landmark in the history of this society, and I move you, sir, that it be spread upon the minutes of the organization."

Another fellow got up and said, "I want to second that motion, and I move you, sir, that it be spread upon the lawn." (Laughter).

I am quite sure that you don't need any invocation from me or from anyone else at this time, because you seem to be the most peaceful and quiet organization that has yet graced the city of Chicago where treatment is rough and ready and can be found in almost any corner and down any alley. That will be a warning to you to stay in the hotel and play bridge quietly, or something of that sort, after the close of the meeting.

I was just talking to our eminent President-Elect a few minutes relative to the habits and various customs practiced in Scotland. I heard of a Scotch farmer who, when asked why he had gone into the country to live, said, "I am expecting an addition to my family and I wanted to take advantage of the rural free delivery." (Laughter) That also has nothing whatever to do with the case.

I have just one more incident to relate that has some connection with this matter. An interesting event of that type was about to take place in one of our local hospitals and the expectant father was wandering up and down the corridors giving himself a big time, and wondering what he should do with himself. He kept on asking the doctors questions, and finally the doctor said to him, "Don't you worry, we have never lost a father."

Then the doctor went back into the room and in a few moments the nurse came out and said, "I want to congratulate you, sir, your wife has presented you with triplets." That was the time they lost the first father. (Laughter)

This is merely introductory to some very heavy diet that I understand is to be our portion very shortly.

I have just returned from some speaking around, and, as you can see, I am quite unaccustomed to public speaking. I am going to apologize for a somewhat

early departure. A certain long-winded preacher was speaking one day. He had covered a great deal of ground, and finally he came to a certain portion in his address—most of the congregation being asleep—and said, "Now, gentlemen, and members of the congregation, I have covered the major prophets and I have covered the minor prophets and I want to know what I shall do with Hezekiah."

A little fellow got up in the back and said, "Hezekiah can have my seat; I am going home." (Laughter and applause)

Chairman Warnshuis: I think it is quite appropriate at this time that we should call upon the gentleman that holds the highest office in the Society of our Michigan State Medical Society, the gentleman who was elected to that office when he was mid-seas in the big ocean, Dr. Louis J. Hirschman of Detroit, President of the Michigan State Medical Society. (Applause)

President Hirschman: Mr. Secretary, Other Secretaries and the Council: I think I am still somewhat at sea. I haven't quite landed on the job yet although ever since I have returned I have found that offices are sometimes like babies. They say some are born babies, some achieve babies, and some have babies thrust upon them. It is the same way with this office. I had it thrust upon me, and I am just about getting my bearings now.

I wish I were as full of oratory as my friend Fishbein is of delivery. (Laughter) I haven't any choice stories to bring.

I simply want to remind our Chicago friends of the change of affairs and in the growth of the country. A great many years ago we used to read a great deal in the alleged funny columns of the papers about the growth of Chicago, how it had overspread Cook County and enveloped the state of Illinois. I just want to remind the fellow cities that Michigan has now spread out over Chicago, and this now being part of our state we are holding our meeting here. It is a strange fact that the state of Michigan is so peculiarly located geographically that it is much more convenient for those who live in the northern peninsula to come to Chicago than to go to Detroit, so those who live in the northern part of the state regard Chicago as part of their own.

The meeting that has been called I think is one of the most important that has ever been held. The opinion that a great many of the membership of the State Society has held about the American

Medical Association and its relation to the individual county societies, as well as the individual members, has been rather vague, and I think it is going to be a great thing for the state of Michigan and a great thing for the County Societies and the secretaries who come here to meet face to face the personnel of the American Medical Association and be able to investigate at close range its activities. It is a great privilege, and I certainly feel that it is going to inure to the benefit of the Michigan State Society to such an extent that it won't be a great many years before a new crop of secretaries having been elected will hold another meeting here.

Our problems in Michigan, no matter from what part of the state we come, are more or less uniform. There are differences in the individual problems but the problems of the profession are the problems of the profession in other states as well.

I don't know whether in other states they are more fortunate than we are in not having to be constantly on their toes regarding our medical legislation from being disrupted, but to constantly strengthen it. We have this year quite an ambitious program. We have only two bills before the legislature in which we are particularly interested, but it is of vital importance that we this year not only back up these bills through our own membership, but that we enlist the aid of our newly organized Women's Auxiliary to such an extent that they can assist in getting signers to the petition which you have all received lately in order that we may come to the legislature with several hundred thousand names of the citizens of Michigan asking for better laws to protect public health.

The attitude of the legislature has been heretofore, and I presume always will be, that the doctors are always wanting something for their own personal benefit. By getting signatures through the Women's Auxiliary particularly, their friends and co-club members of societies, churches and lodges it will show the legislators that it is the public at large who are asking for this protection from those who are attempting to practice the healing art and are not properly fitted to do so.

The question of securing more members in the County Medical Society is always one of paramount importance. Even in the cities where it is much more convenient and easier to reach men practicing medicine, that problem is always fraught

with difficulties. A great many men, it is strange to say, men who have graduated from medical schools, who have always been the fraternal type and have always lived in harmony with their fellowman until graduation, after they leave their medical schools or their internship seem to lose that spirit of cooperation and neighborliness and want to drift for themselves. You find some men who sort of feel that the medical society has no particular interest or value to them. They have no particular reason for thinking so except that through some strange trick of fate they have located perhaps a little farther away from some of the other men practicing the profession. It is going to be increasingly difficult to reach those men and bring them into the fold.

I think one thing that the County Secretaries Conferences should dwell on quite largely is ways and means of reaching the man who is a good man, who is a good practitioner, and who has been waiting to be asked to join the medical society. For instance, we thought we had our Society pretty well organized in Detroit, but the secretary's figure showed us that even in the last year we were able to increase that membership by practically ten per cent by a little effort. I think in some of the smaller societies the percentage could be markedly increased by a little personal effort.

I have no great message to deliver to you tonight. I am simply glad of the opportunity of greeting you all here in this part of our state, and I want to just simply say that since you have honored me by elevating me to the highest office within your gift I am at your service, and if there is anything that I can do personally or in my official capacity to help bring your individual County Society to a little higher level in any way, shape or manner, all you have to do is to let me know and I will be there to do whatever I can.

Mrs. Hirschman has informed me that I have a temporary divorce lasting one year because she has seen so little of me since I have been on this job. Any hour of the day or night that you feel I can be of service to you, don't hesitate to call on me. (Applause)

Chairman Warnshuis: As you know, the Council of the State Society is constituted of men elected from each congressional district of our state. The Council is the active administrative body of our State Society, and at this time I feel it is quite the proper thing to call upon the Chair-

man of the Council, Dr. R. C. Stone of Battle Creek. (Applause)

Dr. R. C. Stone: Mr. Secretary: It is indeed a great pleasure for me to see so many of our County Secretaries respond to an invitation to attend a meeting of this sort here in Chicago. We, the Council, recognize—have always recognized—that probably the greatest figure in the activities of our State Society are, in reality, our County Society secretaries.

We appreciate very deeply the splendid effort which each and every one of our secretaries of our County Societies have made, and we hope that those efforts will not be lessened any in the future.

As Dr. Hirschman has alluded to the fact, when it came to a question of deciding upon Chicago and the American Medical Association building as a place of meeting for this conference, we were inspired to promote it with the feeling that our county secretaries would go back to their Societies with a new field of vision, a greater field of vision, and with inspired vigor to carry on during this coming year. There are many activities, as you know, that are going on and are being carried on by the Michigan State Medical Society, some twenty-eight or thirty in number.

The function of the Council, as Dr. Warnshuis has said, is to administer as well as we can, and to aid in every way, the performance of those various functions. We can only succeed in doing that by your help. While we have recognized always the splendid help which you have given us, we want you to continue and we want you to feel that if there is anything that any member of the Council individually can do, or the Council as a whole can do, to be of assistance to you in working out your problems, all you have to do is to ask and we will come readily and quickly and happily to your assistance.

The meeting tomorrow, which you are going to attend at the A. M. A. building, is probably one of the best meetings which it is possible for any gathering of county secretaries to attend. I think possibly, as Dr. Hirschman has alluded to the fact, that when we have a new crop of secretaries another meeting of this sort will be held here. I don't know but that it would be a good plan to have the meeting here every year because I feel if you men get the inspiration in seeing what is being done and is going on in the A. M. A. building, such as we men of the Council have had today, you will go back well repaid for having made this trip to Chi-

cago. We are very happy to have so many of you here. (Applause)

Chairman Warnshuis: Because of no particular merit that I may possess, it has been my privilege, however, for some seven years to preside at the meeting of the House of Delegates of the American Medical Association. It has always been a very impressive moment to me when, at the Thursday afternoon session of that House of Delegates, where in the order of business we arrive at the election of a President-Elect of the American Medical Association. I have been extremely impressed that each year there has come forth some outstanding man who has been honored with that office.

This last year at Minneapolis, particularly, the members of the House of Delegates saw fit to elect to the high office, the President-Elect of the American Medical Association, a man who for a score or more years has been deeply and vitally and personally concerned with the activities of the profession of this country. He served in various capacities, on the Board of Trustees of the American Medical Association, and for many years as Chairman of the Judicial Council, and eventually he was elevated to the office of President-Elect of the American Medical Association.

As I had the privilege of presenting him to the House of Delegates as their choice for that office at the Minneapolis meeting, I consider it now an extreme personal pleasure to present to you President-Elect M. L. Harris of the American Medical Association.

. . . The audience arose and applauded . . .

President-Elect Harris (American Medical Association): Mr. Chairman: As the President-Elect of the American Medical Association I wish to extend to you, on behalf of the Association, greetings that you are holding your meeting in Chicago today. It is one of the most important meetings, as I see it, that can be held by a State Association.

As President-Elect I find there are several duties and obligations imposed upon me, not the least pleasurable of which is that of visiting various sections of the country and attending meetings of the State Societies and local societies and meeting those who are actively engaged in not only the practice but of developing medicine and serving the people.

As I looked here to my left and saw Dr. Fishbein sitting here he told me that he was attending this meeting only for

the purpose of getting a meal. As I am not allowed to do much practice during my incumbency in office, I find one of the greatest benefits that accrues to me in going about the country is that I get a good meal every once in a while. (Laughter)

When Morris Fishbein came here—I don't know, but I think it is something like another guest who was found at a big party. Three men who had been entertained quite frequently while in England said to each other, "We have been entertained quite lavishly while we have been here. I think it is up to us to give a party before we go." They all agreed. There was an Irishman, an Englishman and a Scotchman.

The Irishman said, "I think it would be very nice if each of us bring something to the party to add to the festivities of the occasion." The other two agreed to that. When they arrived at the party the Irishman brought three nice bottles of good old Irish whisky. The Englishman brought three glasses, and the Scotchman brought his brother. (Laughter) I don't know who brought Morris Fishbein.

If we review briefly in retrospect the history of civilization we find that progress has been at an accelerating pace. By that I mean if we take any definite period of time, for instance fifty years, we find that the progress in general knowledge or civilization, which are practically synonymous, has been at a greater pace during those fifty years than has occurred in many times the same length of time previously. We find that this applies likewise to medicine. During the past fifty years medicine has made greater progress than in centuries before.

If we review the history of medical societies we find that the early medical societies were organized for the sole purpose of developing medical knowledge and science in the practice of medicine, such as brought about by the concourse of physicians from different parts of the country, the exchange of ideas, and so forth. In that way medicine has developed, and developed rapidly.

We find that the secretary of the early medical society was purely a clerk, his duties were entirely clerical. He was to carry on what little correspondence there was, if there was any, and keep the records.

But medicine, in devoting its whole time to the profession, the development of the science in the practice of medicine, neglected a most important duty. They have failed to develop along sociologic and

economic lines and that, to me, is the greatest problem which the profession has to solve today.

The medical profession has come into a great deal of criticism by lay people during the past two or three years. Articles have appeared in lay magazines of wide circulation that have criticized the medical profession. These criticisms have been directed along principally two lines: (1) The high cost of medical care including not only physician's charges but hospital charges; (2) along the line of failure to provide for the distribution of medical services to all the people.

The high cost of medical service is not due entirely to the medical men. If we analyze why medical fees are higher today perhaps than they were in the past, we will find, first, that medical fees have not increased in amount anywhere near to the extent that other commodities have. If we analyze further we will find that one of the chief reasons why medical fees have increased to the patient is due to the people themselves and not to the profession.

The people have come to believe that there must be a specialist for every ill that flesh is heir to. Why they have come to that point requires considerable analysis, but they have arrived at that point. It is due, to some extent, by medical schools of today teaching medical students that the practice of medicine is too extensive a subject for any one mind to master, therefore inducing medical students to take up a specialty long before they graduate. People have come to believe, and as a result of experience, that the specialist must be paid a much larger fee than a general practitioner, although the service received may be no better than they would have received at the hand of their family doctor.

That being the case, they go to the doctor to see if he is a specialist on the particular ill which they imagine they have. If he is not, then they wish to be recommended to someone who is. Naturally, those who have more bent to commercialism than to the honor and ethics of the profession claim to be specialists in the particular disease for which they are consulted. This demand of the people has given rise to an increased number of pseudo-specialists. The patient finding someone who claims to be a specialist for the particular illness will pay that specialist five or six times as much as he would if he had received the same or perhaps a better service at the hands of his

family doctor. So the high cost of medical care is not alone due to the physician.

Another reason why medical care is said to be so high is that physicians do not regulate the amount which a patient pays for hospital care. You know that the tendency today is for people to live way beyond their means. You know the old saying that the luxuries of our fathers are the necessities of the present generation. People believe that a luxury today is a necessity, and they fail to make provision for sickness or for a rainy day, and when illness comes they have nothing laid aside to meet it. They enter the hospital, and being born and raised and bred in luxury and spending their entire income, feeling that they must have every luxury that the rich enjoy. They must have their radios, their automobiles and everything that goes with it, so when they enter the hospital they must have the best rooms in the hospital. Whether it is ten, twelve or fifteen dollars a day, they must have one of the best rooms with bath even though they know and have been told, if it is a surgical case or even a medical case, that they won't be able to use the bath perhaps for ten days or two weeks. Still they demand it.

Also, they have been taught that it is necessary to have a special nurse. In the city a special nurse costs fifty dollars a week, and in addition it costs one dollar and a half a day for the nurse's board in the hospital, or sixty dollars and fifty cents a week for a special nurse although a special nurse may be entirely unnecessary.

Even admitting that a special nurse, after a surgical case, may be necessary or at least desirable for two or three days, after they have had a special nurse for two or three days they feel they would like to have the nurse continued as a companion because it is very lonesome alone in the room. They are no longer content with ordinary floor nursing but demand a special nurse.

At the end of the illness they find that they may not be able to meet the hospital bill and it will take perhaps a year or so to pay off the hospital bill, and the result is that the doctor's work is done gratuitously.

That is the doctor's fault. The doctor should see what the economic status is of every patient that he expects to take to a hospital, and he must regulate the amount of his fee and the amount which the patient is permitted to pay to the hospital according to the economic status of the

patient. The patient who is not able financially to pay for a ten- or fifteen-dollar-a-day room should be compelled by the doctor to take a room for which he can afford to pay.

If a doctor finds that a patient is not financially able to pay for a special nurse, the doctor should insist that he have no special nurse. In other words, the doctors should see, as part of their business, that patients are not permitted to run up higher hospital bills than are needed and are demanded from the necessities of the case and that the individual is unable to pay.

So we see that the high cost of medical care is not only the fault of the people but in certain cases the direct fault of the doctor.

Another way in which the doctor is deprived of just returns for his services is when he is requested, for so-called altruistic reasons, to donate his services for the benefit of the public. The physician has no obligation, either morally or ethically, to work for nothing for the benefit of the public any more than any individual in any other line of endeavor. But because for years and years, as a result of tradition, the physician has come to be viewed as an altruistic individual, which I will say is false, he feels he must be imposed upon by every demand that is made for his services in the name of altruism.

The people have come to know this. Legislators have come to know it. Laws are passed compelling the physician to do certain work free which legislatures would never think of imposing upon any other class of people. This is along the line of public service work for the benefit of the community.

The physician has no obligation to do public health work without just compensation.

The matter of infant welfare is another duty that has been imposed upon the physician. In the city, infant welfare stations have been established in all sections of the community. Doctors were asked as a matter of altruism, and a compliment sometimes to their vanity, to assume charge of these infant welfare stations, and to advise poor people, mothers particularly, how to feed and care for their infants. But it was not long until it was found that women in furs and fine raiment drove up to these infant welfare stations in automobiles, took their children in and had them weighed, measured and tested to see if they were up to par, and to be advised if they were not as to the

line of diet, and so forth, an imposition on the profession.

Free school clinics in the city is another way of imposing on the physicians. It is but recently there was an article in the Chicago Tribune of the establishment of free pre-school clinics and it was stated in this article that physicians were to be asked to donate free two hours a day of their time to attend these pre-school clinics; a pure imposition and one which a knowledge of economics should prevent the doctors from doing.

There are certain charges on the public, on the state and the community; for instance, the paupers. We all acknowledge that the class of people which we may designate as paupers are a direct charge on the community. The physician has no moral obligation to assume the care of a community or a state charge without being compensated by the state.

For the physician there is no obligation, either moral or ethical, to donate his services to free clinics where those who are treated in the institution are direct charges on the community.

There are many other ways in which the physician is imposed upon under the name of altruism.

If we come back to the medical societies, the clerical duties which heretofore belonged to the secretary, the secretary has long since outgrown. The secretary in place of being a clerk with simple clerical duties in the medical society today has become the motive power of the society.

If I were to paint what I believe to be the type of secretary we should have, I know we would all rise up and say, "There ain't no sech animal." I believe the secretary of today should devote his study and his energies not particularly to the advancement of medical science—that is well taken care of—but to a study of economics. He should inspire the members of the society with a desire to study medical economics. The medical profession has come to the point where it must study economics and govern and regulate practice along sound, economic lines, or the medical profession is going into decline.

There are too many millions of dollars donated today to the establishment of foundations, the sole purpose of which is to see that people receive medical care at rates less than the doctor can give it. There are in Chicago today \$400,000,000 in the shape of buildings and endowments that have been given for so-called altru-

istic purposes. That means that institutions of the kind, foundations, are going to see that the full obligation of the medical profession to take care of all of the sick is to be fulfilled, and if the medical profession doesn't assume that obligation and see that it is carried out, these foundations, these organizations, are going to see that it is done without you.

I think the greatest problems today which confront the profession, and which it is the duty of the secretary to bring before his local society, and keep before the society, is the question of medical economics. But we want to be sure that in bringing these subjects before the society that they are brought up and acted upon in a deliberative and judicious manner.

It won't do to proceed too hastily, proceed too radically, but every action which we take must be thoroughly studied, must be viewed from all of its aspects so that when a decision is finally reached it will be a decision governed by justice to all concerned. (Applause)

Chairman Warnshuis: After all has been said and done, after the motion has been made and the resolution carried, it is just as Dr. Harris said, the secretary is responsible for the applying of that activity that his county society has indicated as being desirable. As in the County Society, so in the State Society, and as in the State Society so in our American Medical Association it is the secretary upon whom rests the responsibility of our response to our acquittal of the trust that is reposed in us.

As you and I know, as secretaries, the tremendous amount of work that is entailed in such a responsibility, you and I can appreciate in our limited spheres what it must mean to be the Secretary of the American Medical Association. The man who now occupies that position is peculiarly qualified because of his training first as a County Secretary and then as a State Secretary for the state of Tennessee and a health officer for the state of Tennessee. He now assumes a dual role that was administered first by Dr. Simmons, whom we all love and adore and know what he has done for your national organization, and for our former friend, Dr. Craig, who has gone beyond who occupied the office of Secretary of the American Medical Association. Dr. Olin West now assumes the two roles, Secretary of the American Medical Association, and General Manager.

It is my pleasure to introduce to you now Dr. Olin West. (Applause)

Dr. Olin West: Mr. Chairman, County Secretaries of Michigan, Members of the Michigan Council: I want to extend to all of you, in behalf of the administrative personnel at the headquarters of the American Medical Association, a most cordial welcome to Chicago and to the building of the American Medical Association. We feel honored in having you here, and we expect to derive quite as much benefit from your visit as you can possibly derive from coming to see us.

When you have opportunity tomorrow, we want you to see as fully as you can something of the work of every department of the American Medical Association. We shall be happy to have you ask any questions that you want to have answered, and we shall especially appreciate any suggestions that you may have to offer us. Nobody in the organization of the American Medical Association has ever come to the point where he feels that he is above criticism, and while we are very proud of the organization that we have consisting as it does of some 500 individuals all of whom work hard for the advancement of the interests of the medical profession and for the public service, every one of them is open to suggestions and we believe that you, tomorrow, will be able to give us some which I want to assure you again will be heartily welcome.

I have not known and don't know just yet what I am going to talk about, but I am not going to try to detain you very long. I am not going to tell you any jokes. I want to assure you that Dr. Fishbein is a much better editor than you might think from the three so-called jokes he told you. I want to assure you, without any fear of successful contradiction, that he is very much more up-to-date as an editor than in his jokes. (Laughter) By the same token, our honored President-Elect is a much more up-to-date surgeon than his joke is an up-to-date joke.

I very heartily agree with practically every word that Dr. Harris has said here tonight. I believe that the medical profession is imposed upon. I believe that it has allowed and still allows itself to be imposed upon. I do believe, however, that there are certain things that doctors get for being doctors, and that the medical profession as a profession and individually as physicians has upon them by the very nature of their calling certain responsibilities which none but they can meet, and which they must meet with or without reward.

We are faced with many what we have

been pleased to designate of late years as problems, some of which in my judgment are really pseudo problems, manufactured, with not much real existence in them. Some of them are problems that affect the medical profession as a profession. Some of them are problems that affect medical organization as such, and of course every individual physician has his own problems just as does any individual citizen in any walk in life.

Some of these problems in my opinion, as Dr. Harris has so broadly intimated, have been created by the medical profession itself. Some of them have been created by the public; some of the real problems, I mean. Some that appeal to some of us as problems are really not problems and do not exist except in imagination or in the thought of some reformer or some agitator. There is, in my judgment, one answer to most of the problems that affect the medical profession and which the medical profession can solve, and that answer is to be found in the delivery of adequate scientific medical service to those in need of medical service. In my opinion the first and the everlasting problem of organized medicine is to meet the situation by doing everything that it possibly can do to make every individual physician a better physician.

I believe the primary reason for the existence of medical societies is that they may promote the art and science of medicine, and I know no way in which that can be better done than by helping every physician to be a better physician and to render better service.

While I believe that medical organization ought to consider as fully and as thoroughly as it can do, and as helpfully as it can do all of these economic problems, I believe the fundamental thing to be kept in mind always is that our first duty is the promotion of the art and science of medicine, because I don't believe that it is possible for physicians to serve public or to serve the profession better than to render the best service that can be rendered.

There are many of these questions affecting medical practice and medical organization today that ought to be very thoroughly and very solemnly discussed in society meetings and in meetings of groups of this kind. There are some evil tendencies that need to be corrected, and that can be corrected only through the persistent effort of medical organization.

There is a tendency that it seems to me is becoming more widespread and more

forceful to get away from professionalism, to get away from the ethics of medicine. I am constantly hearing it said by men that come here from all over this country, "Our ethics are obsolete. There is no reason for all of these ethical rules." Just today a man from a neighboring state was in my office while your Council was in session who came for the purpose of arguing with me that the medical profession ought to advertise, that any rules of ethics which are intended to prevent advertising on the part of the individual physician ought to be wiped off the book. Of course I didn't argue very long with him because it is my conviction that unless the ideals of medicine are maintained, unless the rules of ethics as they are drawn are lived up to we cannot exist as a profession.

If you want to turn medicine into a business, abolish your rules of ethics, forget the ideals and the traditions of the profession, and you will be in business up to your necks within one hour after that is done, and your service to the public will not be worth anything at all. Your relations one to another will be of such character as to be absolutely unbearable.

In my humble judgment, Mr. Chairman and gentlemen, there is nothing that organized medicine can do today that is more important than to revive a steadfast determination to live up to the richest ideals and traditions of our profession, and to fight on any battle ground that may be necessary for the continuation and for the absolute observance—absolute may be too strong a word—but for the reasonable observance of our time-honored rules of medical ethics.

There is another very serious question that, in my humble judgment, demands the careful attention of organized medicine today, and when I say organized medicine I mean the regular organization of medicine as it exists in the County Medical Societies, the State Medical Association and the National organization. It seems to me that every man that has a notion come into his head runs off and starts another medical society of some kind. We have colleges, institutes, clubs, societies, convocations, congresses, conferences, associations, and this, that and the other until there is no end of them. There is a multitude of them. Whether you realize it or not, I am here to tell you that they are sadly undermining the efficiency of medical organization and that they tend to the destruction of the County Medical Society especially. It has gotten to

the place where many of our County Medical Societies no longer have meetings. The staff meetings of hospitals required by this, that and the other organization have crowded them off the map, and I am beginning to wonder if we are going to be forced to substitute something for the County Medical Society. I am almost convinced that unless the members of the County Medical Society take the matter in hand and stop this dissipation of allegiance and put the effort that they spend in all of these extraneous organizations in their own fundamental organization that you will have to do something and substitute something for the County Medical Society.

I am speaking a little vigorously about it because, as I see it from where I sit, it is one of the most serious problems before us today as an organized medical body. Some of these organizations are interfering pointedly—I am not saying they are interfering deliberately and on purpose—with our medical societies, the County Medical Society and the State Medical Association, to say nothing of the National organization.

Now their members are our members. There cannot help but be dissipation of effort and dissipation of fealty and loyalty when all of these various organizations, some of which may have good reason for existence and some of which may not—some of which do not, I am even willing to say—there can be but dissipation of effort and waste of effort and dissipation of fealty as long as these multitudinous organizations are allowed to exist and to continue to multiply.

Dr. Harris has told you something of the tendency to the further development of paternalism. Our government is getting to be paternalistic. In many respects, it seems to me, there are those who would also make medical organizations paternalistic. I am very much amused at times when men who howl loudest about the paternalism of the government come to the American Medical Association and are perfectly willing for it to take over everything that they ought to do for themselves.

By the way, Mr. Chairman, I want to stop here just long enough to express my conviction, for whatever it may be worth, that the strongest society in county or state is the society that does its own work for itself. I think there is a trend in some of our state associations to do the work of the County Society for it and, in my judgment, that sort of a program will result

inevitably in the destruction of the County Society.

Our whole purpose of life, of government and everything else these days seems to be to make it as easy as possible for the individual and for the group. I think that is one of the most evil tendencies of the times. The County Medical Society ought to do its own work for itself. There are things that the State Medical Association can do for it, and ought to do for it because the County Society can't do them. There are things that the American Medical Association can do for the State Association because the State Association can't do them. There are things that the state could do for the county, there are things that the American Medical Association could do for the state, but ought not to do because those units ought to do their own work for themselves.

We have been rather proud here of the record of the Michigan State Medical Society. We believe that tremendous, real progress has been made in Michigan in medical organization and in the results that have been bestowed upon the public through the efforts of the Michigan State Medical Society and its component societies. I am glad that this tendency of which I have spoken has, in so far as I know, not come into evidence in the state of Michigan and I congratulate you, Mr. Chairman and the Council and the Secretaries of the County Societies of that state, that this is true.

I am inclined to believe with Dr. Harris that one of the greatest menaces threatening medicine today is the millionaire with misguided ideas of philanthropy. Just recently a very charitable man possessed of many, many millions, who has given away many, many millions, has given away some more millions to provide medical service for the white-collar man, or what we call the middle class.

I read an article from him not a great while ago in one of the very popular magazines in which he discussed these questions of philanthropy, and that article seemed to me to be very sound; his views seemed to be sound as they were expressed there. One of the soundest was that the millionaire who has money to give away ought to get the best counsel available, but this very man who wrote the article has recently given away millions and, so far as I have been able to ascertain, has never asked one word of opinion from any physician in connection with his recent donation for providing medical service to the middle class.

I don't know how they are going to provide medical service to the middle classes without working harm to those very classes that they are supposed to be going to help. If he would give \$40,000,000 for teaching those people to stand on their own feet and look every other human being on earth straight in the eye and demand what belonged to them, and work for what they get and pay for what they get, he would render far more valuable service than he can ever render by making money available, the use of which will tend to pauperize the individual.

As I said in the beginning, the answer to many of these so-called problems will be found and will only be found in the delivery of adequate scientific medical service to all who need medical service. I am not concerned very much, in fact I am not concerned at all, about the cults and quacks. They have always been as thick as thieves all over the face of the earth, and if you were to wipe them off the face of the earth tonight there would be just that many more tomorrow night. I am not so sure but that we have kept some of them alive by our own agitations.

Two or three years ago the Palmer School of Chiropractic had 3,000 students in it. Today it has less than 300 I am reliably informed. It has killed itself, and I believe it might have done so a little sooner if we had been a little more quiet. The very first president recited the fact before the very first meeting this Association ever held that the quacks, the fakirs and the cultists swarm over the land like flies. They have always been here; they always will be here, and the way for us to get rid of them, as far as that can ever be done, is to deliver the goods. When that is done there is nothing on earth that can take the place of scientific medical service. There can be found many substitutes for poor medical service, which is the poorest thing in the world, but there is nothing that can displace good medical service. Think it over! It can't be done.

So I say again that in my judgment the first duty of organized medicine is to do everything possible to make every member a better physician. Our County Societies can do it not only through providing good scientific programs but also through the provision of good programs dealing with these questions that Dr. Harris has talked about, and that I have referred to. It can do it by bringing into social contact the members of its own group. It can do it by rendering the service to the public that the public has a

right to demand of it as an organized group.

It has a responsibility I think, and I think Dr. Harris will agree with me, that rests upon the medical profession and that is to say in certain public positions. If I had my say, I would have a first-class physician on every Board of Education in the United States before tomorrow night, and if he didn't work I would put him off in ten minutes and put on another one who would work. So I would put good physicians in many places of public trust of that kind where they can render an invaluable service that nobody on earth can render. There is an opportunity for service by organized medicine, by your group and by every group in the United States.

The State Medical Society of Michigan renders a very distinct service to the members through the publication of a journal, a good journal. The County Society can't do that for itself and the State Medical Association can do it and does do it, and does it very creditably.

The American Medical Association tries to discharge some of the obligations that rest upon it by the publication of what we fondly hope are truly representative scientific journals and other periodicals. Those are duties that devolve upon the American Medical Association because it alone is in position to assume them and to carry them out.

But in closing I want again to repeat the thought which I have already given expression to, that the County Medical Society is only as strong as it makes itself, and that this is equally true of the State Association. I am gratified to be able to express my very sincere conviction that the state medical associations in this country today are far stronger than they have ever been before, but I regret exceedingly to say that in some instances the county medical societies appear to be weaker than they have ever been before. If that is true, it is a challenge to every county medical society in this country, efficient or otherwise, to get on the job and to make the strong ones even stronger, and to devise some plans whereby the weak ones can be made strong. Whatever it may take to do that ought to be done.

Again, Mr. Chairman, I wish to welcome this group very heartily to Chicago and we should be especially delighted to have every one of you at the headquarters building tomorrow morning where we will be very glad indeed to do whatever we can for your convenience and give you any in-

formation that you may wish to have that we can provide. We hope you will look into every crack and corner of that building and try to get as much information as you possibly can about what we are trying to do there.

I thank you very kindly for your courtesies. (Applause)

Chairman Warnshuis: For no other reason than just having heard Dr. West and what he has said tonight would we have been justified in coming to Chicago for this annual meeting of the Council and the members and Secretaries of our County Societies.

As you have gained an inspiration from what Dr. West has told you tonight, a similar inspiration awaits you tomorrow in your visit to the building of the American Medical Association which is your home. This meeting tomorrow morning is going to be called to order at nine o'clock. There are going to be short talks given by representatives of the various councils and bureaus of the Association, and then we are going to give you a sardine sandwich. Dr. West has arranged to have three police officers at each door leading into that building so that after you check in remember you are sentenced to one day of service at the headquarters of the A. M. A. tomorrow and you can't get out until five o'clock tomorrow afternoon. After you have gone into every creak and crevice the Association has over there and you have gained that inspiration I am sure each one of you will be 100-fold repaid for having come to this meeting.

We have here tonight Dr. Dodson, who is Secretary of the Bureau of Health and Public Instruction. I am not going to ask him to talk, but I just want him to stand up a minute and say hello to you. (Applause)

We also have with us Dr. Caldwell, who has been the inspiring Secretary of the Council on Medical Education and Hospitals, the individual who has created the standards for medical education in this country and who is now devoting his time to standards of hospitals. Dr. Caldwell, who is going to tell you tomorrow how to knock out the staff conference meeting that is putting out of business the program of our County Society. (Laughter and applause)

Is there any secretary who wishes to ask any questions or anything pertaining to the meeting tomorrow, or on anything that has been said tonight?

The headquarters of the American Med-

ical Association is at 535 North Dearborn Street, just a few blocks across the river. Taxicab fare from this building is forty-five cents. We are going to be on the job at nine o'clock tomorrow morning, and we stand adjourned tonight.

... The meeting adjourned at nine o'clock ...

THURSDAY MORNING SESSION

January 17, 1929

The meeting convened at nine thirty-five o'clock, Dr. L. J. Hirschman, President of the Michigan State Medical Society, presiding.

President Hirschman: Fellow Members of the Michigan State Society, and I was going to say our guests but they are really our hosts of the American Medical Association: We are starting a little late. Those of us who have come from Michigan want to get all the nuggets of knowledge which are going to be poured fourth from the heads of the various councils and bureaus and departments. We start without any further preliminaries, and as each one of the gentlemen who are going to favor us this morning are so full of their subjects we want them to hit the high spots and give us the essentials. Of course, papers of this kind will not be discussed, but I am sure any of them will be glad to answer any questions about the work of the bureaus.

None of them need to be introduced, but I will present Mr. Will C. Braun, Business Manager, who will tell you something about the American Medical Association headquarters and maybe something about the Journal. He is a great all around manager. (Applause)

Mr. W. C. Braun: Mr. Chairman, Ladies and Gentlemen: Both Dr. West and Dr. Warnshuis were good enough to ask me to say a few words to you relative to the business and mechanical activities of the A. M. A.

It being almost two score years since associating myself with the organization, I have had the pleasure of seeing it grow from an infant to, as our friendly enemies call it, a medical trust. By the way, I used to boast of my long connection here, but recently on mentioning that I had been with the A. M. A. nearly thirty-eight years, Dr. Fishbein spoke up saying, "Yes, and you look it."

When I hear the A. M. A. referred to as a trust I am always glad of an opportunity to explain that it means the Association is a trust to protect the public

against medical fakes and fakirs. I tell the story that this is the only organization I know of that works against its members. It keeps folks posted so that they may keep well and not require the services of a physician.

When I came to the Association, in 1891, the office was maintained in the center of a dingy typesetting room occupying a space 12 x 15 feet, with a pine railing around it and with two small gas jets furnishing illumination. This was at 68 Wabash Avenue. I was then the book-keeper, advertising and subscription solicitor and copy-holder for the proof-reader. Three years later the Association moved to 8 Wells Street and after being there three years, unfortunately, or possibly fortunately, we had a fire compelling us again to move, this time to 61 Market Street. At this address we had what we considered palatial space, a room 100 x 125 feet. There we purchased our first linotype machine. By 1902 we had begun to shed our swaddling clothes, and purchased a part of the property that we now occupy. At that time there were five three-flat buildings on the property. We razed two of those buildings on the north section of the ground and put up a structure 40 x 80 feet. Dr. Simmons, who was then General Manager, Secretary and Editor, felt that a two-story and basement building would be ample, but he was persuaded to add another story. Within two years' time we were again cramped for space because of the American Medical Directory being put into execution. Still another story was added and the building was extended back forty feet, the Association in the interim having acquired forty feet additional frontage on Grand Avenue.

Like the proverbial snowball, the Association kept on growing. Lack of room compelled the use of one of the old buildings standing on a part of the property. In another five years it was decided to erect a new six-story building at the corner to occupy 60 x 100 feet. This left still standing the old four-story building on the north forty feet which at first we rented, but it was not long before we had to take back the two upper stories, as additional space was needed.

With our six-story building occupying 60 x 100 feet, we thought everything was settled for the future; but before ten years had rolled around activities of the Association had so increased that it was necessary to tear down the original building, buy another forty feet on the Grand

Avenue side and erect a new home to occupy 100 x 160 feet, the present structure, comprising six stories and basement and containing 112,000 square feet of floor space.

When I look back over those years, it seems like a pleasant dream. Of course it was a period of work, but it was a delight to see the Association grow and prosper and do so much good.

As I understand it, one of the principal objects in wanting you folks to visit us was to acquaint you with what the Association is doing, and for that reason we should like to have you take time to make a tour of the building. Arrangements will be made for guides to escort you through the various departments. So that you may have some idea of what is in store for you, I shall give a short sketch of the various floors.

Basement. This is really not a basement; it is what a realtor would call the first floor, but we call it the press room. Mr. Loomis is foreman. He is an expert pressman, and can almost tell good ink by the smell of it. Here you will find fourteen presses humming continuously. These presses average 2,256,000 impressions a day. This is constant performance, the presses being run day and night. On this floor is also carried a four weeks' supply of printing paper. This is done as insurance against delay, strike, or other unlooked-for contingency. Our yearly paper consumption is over 7,000,000 pounds. To give you some idea of the way the business has increased, I might say that we now use nearly 3,000 tons of paper a year as against the 2,100 tons of five years ago.

First Floor. The bindery occupies this floor. Ernie Booth is the head man. He has been with the organization twenty-three years, growing up from mailer apprentice. Here are located the folding machines, one of which, the Cleveland, folds 48,000 pieces a day. We have had this machine only about a year and it has already paid for itself in labor saving costs. While there is other machinery on this floor, one machine to which I should like to call your attention is the gatherer. It automatically gathers ten signatures or sections, wire-stitches them together, and pastes on the cover all at one operation. Our machine is one of the first made of its character; in fact, the manufacturer did a great deal of experimenting on it when it was first installed here. We have had it for twenty-two years, and though it has gathered nearly 800,000,000 sig-

natures of The Journal alone, it is still running to form. But, of course, during that time there have been replacements of parts.

Second-class mail is also assembled on this floor. Every week the post office sends a representative here who weighs the mail and then it is sent direct to the various trains going to different parts of the country. In this way, probably a day's time is saved in getting The Journal to the subscribers. At least there is saved the time of taking this mail from here to the post office, re-distributing it, and from there sending it to the various stations. Our weekly mail runs approximately 90,000 pounds, that is, second-class mail.

Second Floor. This is our composing room. George Harris is the Superintendent. He is really older than he looks because he has worked for the Association thirty-four years. Burt Williams is his first assistant, and is what one might call a good right-hand bower. On this floor all articles are placed in type, either by hand or on the linotype machines. Here, also, is the proof reading room, the stereotyping room, and the several job presses. From a mechanical point of view, this is probably the most interesting floor in the building.

Third Floor. Dr. West and Dr. Fishbein, with their numerous assistants, are domiciled here. Both of these gentlemen are most efficient in their respective duties, but their work here is only a side line. Their outstanding success, as with Dr. Warnshuis, is playing bridge whist in the winter and shooting golf in the summer.

On this floor also are the advertising, subscription and membership departments. Here likewise holds forth the cashier, to whom every one looks with longing eyes, some once a week and others once a month for his or her wages or salary. Getting a salary sounds a little more classy than getting wages; but even at that the wage man has the best of it because his pay comes around fifty-two times a year whereas to the salaried man it comes only twelve times. Thus you will see that the salaried man is really "done" out of four weeks' labor. But the honor of getting a salary probably compensates for the difference. Several of the salaried people now are looking forward to the proposed thirteen-month calendar year.

In the cashier's room you will see the automatic letter opener, and immediately in front of this department to the east is the postage meter, mailing machine. This

machine during December of last year sealed and stamped 250,610 pieces of mail.

I mentioned that the advertising department is on this floor. Last year the income from advertising amounted to \$1,000,000. This is high tide for that department. Here, likewise, is the cooperative medical advertising bureau which represents, in an advertising way, most of the society-owned state medical journals; in fact, it represents thirty out of thirty-two.

There are a number of interesting features on this floor; for instance, the automatic typewriters which actually print a typewritten letter. Through the assistance of electric juice and stencils, the operator actually performs on four machines at one time. The addressing machines for addressing Journal wrappers are also here.

Fourth Floor. This is occupied by various councils, such as the Council on Medical Education and Hospitals, the Bureau of Health and Public Instruction, and News, and the Foreign Abstracting departments. In this latter department translating is done from the French, Spanish, Russian, German, Italian, Norwegian, Swedish, Dutch and other languages.

Dr. N. P. Caldwell is Secretary of the Council on Medical Education and Hospitals. He has been on this job since the Council was organized in 1905. The Bureau of Health and Public Instruction is presided over by Dr. Dodson. Everyone knows Dr. Dodson, as for many years he was Dean at Rush Medical School and has always been interested in public health matters.

A goodly portion of the fourth floor is occupied by the Directory department, which at this time employs forty-five people. Hygeia subscription and promotional department is also on this floor. Mr. Cargill is the enthusiastic manager. He will tell you a-plenty about his departments if you give him an opportunity.

Fifth Floor. Here are located the library, the N. S. Davis Memorial (in this room our "mike" is in daily use for broadcasting), the Bureau of Investigation, the Council on Pharmacy and Chemistry and the lunch room. In the library the guiding spirit is Miss Hutchins. Not only has she charge of the library, but she also looks after many of the details of the Quarterly Cumulative Index Medicus. In the Bureau of Investigation Dr. Cramp is the head, and in the Council on Pharmacy and Chemistry you will find Professor Puckner.

I probably ought not to say it, but, confidentially, the Professor has long been a thorn in my side. As you know, one of my several duties, with most efficient help, is securing advertisements for the various A. M. A. publications, but since the inauguration of the Council on Pharmacy and Chemistry a number of years ago all is not wheat that comes to the mill. From the Professor's point of view, many of the advertisements offered to us are chaff, and they are cast aside.

Doctor Leech has charge of the Chemical Laboratory. Generally speaking, this is a big job for one man, but in addition to his work as Director of the Laboratory, Dr. Leech has charge of the scientific exhibit at the annual meeting of the A. M. A., and the work on this is not an annual occurrence, it is continuous the year around.

Sixth Floor. Here is the Legal Department (most efficiently conducted by Dr. Woodward), and immediately adjacent to it the Council on Physical Therapy where Mr. Holmquest presides.

On this floor we have just started the central scientific exhibit. By all means visit this. One of the exhibits will show you how rabbit hunting is made easy; that is, the exhibit on *Tu-lar-e-me-ah*. They tell me that if a rabbit runs slow and is easily captured, he has tularemia; that if he goes fast, and you miss him when you fire, he is a well rabbit. (Laughter)

At this time the Association has 469 employees. With this large group of people it is remarkable what harmony exists. Of course, differences occasionally arise, but the chief difficulty is complaints from the janitors that the employees come so early in the morning and stay so late at night they hardly have time to clean the building.

This is a brief, very brief, outline of the different floors.. I am sure that as you pass through them and meet the various enthusiasts I have casually mentioned you will come to the conclusion that each department must be the most important one in the building. I really think that this individual enthusiasm on the part of the several department managers accounts to a great degree for the success of the organization.

As I have heretofore mentioned, we hope you will at any opportune time go through the building, possibly in groups of four or six, accompanied by guides. The various departments will be glad to go into full details.

Thank you! (Applause)

President Hirschman: Mr. Braun is very modest and he forgot to tell you one of his additional duties, that he is general manager of the annual commercial exhibit of the annual sessions. That is a big man's job in itself, and is done in a way in which nobody can find criticism.

He described somewhat the various councils, at least in an introductory way. The next speaker, Dr. Caldwell, is a man everybody loves and whom they used to fear. He is a man who, instead of making things bigger and better makes them fewer and better. Dr. Caldwell. (Applause)

Dr. N. P. Caldwell: The Council on Medical Education and Hospitals, as Mr. Braun has told you, was started in 1904; I mean it was appointed and created in 1904 but didn't get to work until very late in 1905. I have been here ever since, fortunately.

One of the first works I had was to find out what all the rest of the world had in the way of medical schools and how we compared with those medical schools and standards. To my surprise we found we had 162 and all the rest of the world combined had only 154. So much for the number of Medical schools.

As to the standards, we had only two that were requiring any college work for admission and all the rest of them were high school education or less, and most of the remainder were less. So that our slogan, as our Chairman has inferred, was "Fewer but better colleges."

Reading in one of the convocation reports of New York, the president of Brown University at Providence, Rhode Island, made the remark that what this country needed was fewer doctors but more doctrine. I had the satisfaction later of sending him one of our reports to the House of Delegates in which it was shown that the number had been reduced from 162 to 80, and those having entrance requirements had increased from 2 up to 74. That reduction took place almost entirely through mergers. That is, colleges which are worth while, those rated in our Class C and Class B, have merged. Down at Louisville, for example, there were five large regular schools and they merged into what is now the University of Louisville. In the two Kansas Cities, seven schools merged into what is now the University of Kansas. In Indiana six or seven colleges also merged into what is now the Indiana University.

So that process has been going on, not the killing off of worth-while schools, as

might be implied. Somebody might hear of the reduction from 162 to 60 and think there was a certain medical trust which is trying to stop competition entirely. Now the increase in the entrance requirements while the most marked, illustration was accompanied also by better buildings, better equipped laboratories, more and better teachers, increase in hospital facilities, hospital and out-patient department facilities. At first there were a majority, I think, that didn't have enough clinical material to furnish anything like satisfactory clinical teaching. Now all of the 74 schools have either their own hospitals directly or have very liberal rights and privileges in city or state or private hospitals, so that that is what has been going on.

I should like to say just a few words in regard to the early history of medical education in order that we may understand the progress since the Council was organized. This country has never established any legal supervision over any kind of education including medical, nor over the practice of medicine. The influence from the beginning which was exerted for improvement and the efforts to gain improvement was through the profession itself.

Of course, you know our American Medical Association was organized for that purpose, and there were certain groups of men which worked unusually hard to bring about better conditions, so that, first, certain councils or counsellors representing state medical societies which exerted at the beginning the main semi-legal power over medical schools but even their influence could not be remarked. There was only one instance in all time when a state licensing board was organized with the proper conditions—mind you, this is not a criticism of a lot of splendid work that even now and has been by state boards—but the one marked instance where there was actually a nation-wide influence was when the Illinois State Board of Health was established in 1877. That is the same year the Practice Act was adopted in Illinois and it was the same time when Dr. N. S. Davis and a group of workers here in Chicago were using all the influence possible to have the graded system of medical instruction established.

Dr. John H. Ralph, Chairman and President of the Board, and later its Secretary, and with him six co-workers who were all men of high ideals were held together in this place through seven Re-

public administrations of two years each. During that period the work of that Board was remarkable. In fact, there were 5 diploma mills closed, and the entrance requirements of medical schools was raised from almost nothing to a pretty well enforced high school course; that is, the majority of schools.

Then came a change in administration when Governor Altgeld was elected, which brought with it a sweeping out of office all of the state councils or committees. Of course there was snuffed out, just as you would snuff out a candle, the powerful influence that had been observed by the State Board of Health, and following that the increase in the number of medical schools through this failure to provide supervision over the chartering of educational institutions.

Following 1800 the number of schools had increased far more rapidly than the increases in population, so that it was in 1900 that the highest point was made, 160, although at one time later it ran to 162.

As you know, 1900 marked the reorganization of the Association whereby our House of Delegates was created, and from that time on you have seen in all lines, progress much more rapid in all the departments of the Association.

The Council has been rendering its work first through the establishment of an annual conference, and those annual conferences have been increasing in size and I believe in importance. Before you go out, I want you all to get a program of the forthcoming conference which will be held February 18, 19 and 20.

The next main step was to establish two standards which colleges were urged to adopt, and the first one was merely a completed four-year high school education for admission, a four-year medical course and an examination before a licensing board. That was followed by a suggested standard, as soon as it could be, to raise the entrance requirements to one year of college work. That has really made the requirement for Class A in 1914, and in 1918 it was raised to two years of college work. So that now all the 74 schools, really 75 now, are requiring for admission two years or more of college work. There are some eight or nine that require three or four. Only two require a degree. There are about nine that have the one-year requirement.

Speaking about that requirement, the two years of college work in this country just brings us on a par with the entrance

requirements of the medical schools of Europe. You see there the secondary school carries the student higher than our secondary schools in this country. After one has graduated from any of the high schools, secondary schools of Europe and Great Britain, in coming to this country they secure advance credit of one and one-half to two years in our colleges. I don't believe that is quite as generous as it used to be. The requirements of two years of college work doesn't bring us far and wide beyond any other country, and brings us merely on a par, which is a reasonable requirement.

In addition to the conferences, then came the first classification of medical schools in 1906 and 1907. During that college year the first inspection was made of all schools on a sort of civil service basis, and they were given a rating on a percentage basis. Those having 70 per cent or above were in Class A; those between 50 and 70 were in Class B, and those below were in Class C. The Class C schools have all disappeared excepting six, and last fall the Council at its meeting decided that those schools were really being kept alive through our own actions. They were rated in Class C and it was shown their diplomas were not recognized in more than one state, two in one instance. They were allowed to go ahead because they were listed among medical schools, and in that way we were helping to perpetuate it.

At the last meeting the Council voted that hereafter those schools were not even to be recognized as medical schools, and any one who graduated from them and succeeded in getting a license wouldn't even be recorded in a directory as being a graduate of a medical school, but merely as an institution not recognized as a medical school by the Council on Medical Education. So that, we feel, is going to at least take away the Association's responsibility for even directing students toward those institutions.

In 1920 the Council's name had two words added to it, "and Hospitals," and all the work of hospitals was turned over to the Council of Medical Education and Hospitals. Prior to that we were naturally interested in hospitals as they were connected with medical schools and as they were furnishing intern training, but at that time there weren't enough hospitals willing to look at interns to provide places for all the students then graduating, and that continued in that way practically until 1915. Especially since the War the num-

ber of hospitals looking for interns and wanting them has been greatly increased, so that now there are more hospitals seeking interns than can get them. That has given the opportunity to require a little bit more of an educational atmosphere in hospitals for those wanting interns.

To make the statement brief, we now have three lists of hospitals, those admitted to the hospital register, and those can be any size hospital so long as it is run in an ethical manner and is considered to be a place where patients can be sent with fair safety of receiving proper attention; in the next higher list are over 6,000 hospitals, 6,825, and those vary in size from seven beds up. Only those that are considered as reputable are now named in either the Journal or in the directory and they are referred to as registered hospitals. Then comes the intern list. There is something over 800 hospitals in that list now. Before two years ago the situation wasn't such that any definite requirement could be made of intern hospitals, but the time had come right because we found that on the list of hospitals approved for internship the majority of them had from as high as 85 per cent of autopsies, or 85 per cent of deaths in hospitals where they had autopsies held on them. So that requirements then, which was mild and reasonable, was that 10 per cent of all deaths should be autopsied beginning in 1928, and beginning this present January it has been further increased to 10.

When we sent out notices to hospitals that needed to secure these, we expected to find a good many objections. To our surprise we got many letters commending us for the action because in many instances there were certain individuals on hospital staffs which were opposing, and perhaps opposing with sufficient strength to keep the autopsies down to less than 10 per cent. Other hospitals at first wrote in and said it was utterly impossible and couldn't get them. The surprising thing is that we tried to encourage them to do it and furnished them printed data with regard to autopsies, so that percentage has been increasing just like the temperature rising on a temperature chart. So we have had some very enthusiastic letters in that respect. When they got right at it, they found it wasn't nearly so difficult as it seemed.

Then, again, I think you will all agree that there is no one factor in any hospital or medical school where diagnosis proper diagnosis can be stimulated, and

which are more educational in their value than these conferences where reports on autopsies are given, and the so-called clinical-pathological conferences are held.

Another important thing in hospitals, next perhaps to the autopsy, is the staff conference. There is where reports of all deaths are presented to the staff members and any questionable cases or doubtful cases are given full discussion right in the official family of the hospital. Where autopsies are held and interesting facts are brought out, these are also presented at these staff conferences.

These have proved to be very helpful, indeed, and extremely interesting. I have heard people say they would rather miss their meals than miss their hospital staff conferences.

This brings up the question that arose last night with regard to the apparent conflict between county society meetings and staff conferences. In our Secretaries' Conference in November the same question was discussed, and there are some places where the county societies are meeting around in different hospitals attending these staff conferences. Most of the members of local societies, in cities at least, are members of hospital staffs, and the thing is that we can't do away with the hospital staff conference because there is where the hospital checks up the results of its work, and if things are going wrong in a hospital and certain members are performing operations that they shouldn't perform and doing clumsy work leading to the mutilation or death of their patients, there is the place where that should be checked up. If an offending member continues to offend he should be taken off the staff. One of the essentials in conducting our hospitals is to do so in a manner in which they will be to the credit of the profession. Some way certainly can be worked out whereby the county society meetings can take advantage of these excellent and helpful conferences, where interest and education can be shared by both institutions alike.

I want you to particularly see the files downstairs. One is what we call our students' register file. We started now and, as you know, get reports of the students at the time they enter the medical schools. We used to get them at the time they graduated. If a doctor gets out and gets into practice you can write him until doom's day and you can't get any information out of him. Where we start with the beginning of his career we follow him through in chronological order. We

don't get the definite grades, but we do verify the fact that he entered the school and was promoted to the sophomore, junior and senior years and graduated on a certain date. If it took him three or four years to complete the class, the facts are shown in their chronological order. We don't attempt to find out why he had to take the time. There might have been sickness or other causes. One of these might be on a professional job, spending half of his time in that.

The other files are the files of college graduates which we have there, the files of medical school announcements of which we have practically a complete file; another is the hospital files, and also the reports which we get from state licensing boards. . (Applause)

Dr. Warnshuis: Dr. Hirschman is utilizing this time to do a little broadcasting over the "mike" in the next room, so it is my privilege to introduce to you the next speaker, Dr. Leech, who is going to talk on "The Laboratory." In addition to the laboratory work that he does here, he is the man that has been delegated by Dr. West to run the scientific exhibits at our annual meetings. If you have never been to an annual meeting of the American Medical Association you have missed one of the finest educational features that exists in the country, the scientific exhibits. Dr. Leech. (Applause)

Dr. P. N. Leech: A chemical humorist, Clawson, says that while sound travels at a speed of about 11,000 feet a second it takes about twenty years to penetrate through the ear into the brain.

Our chemical laboratory has been in existence for twenty years and we are beginning to see the effect of the work that was started, of the vision of men like Dr. Simmons and charter members of the Council on Pharmacy and Chemistry, and Dr. Cramp. In fact, the work of the chemical laboratory is being more widely appreciated by the profession at large.

Chemical laboratories are a rather technical thing to talk about. It is difficult to put across exactly the work which a laboratory does because, undoubtedly, the technicalities are of such a nature that they appeal more to the man who is a chemist than to the layman. But in the case of our chemical laboratory we can at least point out some of the results.

The functions of the chemical laboratory are three-fold: one on the Council on Pharmacy and Chemistry; second, a certain amount of independent work to the service of the profession; third, the

Bureau of Investigation. The work of the Council on Pharmacy and Chemistry, and the Bureau of Investigation will be explained by the speakers succeeding me.

Let us take up a few of the problems that confront a chemist in the laboratory of the American Medical Association. You will recall about three years ago ephedrin was introduced in such a manner that there was a certain romance connected with it. It was an old Chinese drug, and had an action somewhat like epinephrin. We are all familiar with the fact, of course, that ephedrin is a different proposition in so far as it has two isomers one of which is practically inactive, while epinephrin has four isomers. The products were unstandardized. A man on the Atlantic Coast and a man on the Pacific Coast may get the product of barren activities, and when they again record their results in medical literature the results are not accountable. The chemical laboratories are endeavoring to standardize ephedrin, and we are glad to report that there isn't, to our knowledge, a manufacturer of one of the better grades of ephedrin that is not preparing according to standards. When a manufacturer hesitated about complying with our standards we would not modify them, and he came across six weeks later and said he could afford to furnish the same grade even though it meant discarding about 40 per cent.

In all this work, the public comes first and the medical profession next. The manufacturers now, without any governmental control, will put on the market a product which has been accepted as standard by his chemical laboratory on neutral acriflavin or acriflavin hydrochlorid. Manufacturers both here and in England have now agreed to manufacture the products according to definite standards, so that an Englishman will not say, "I wish I had as good acriflavin here as they have in America."

You may recall that even as recent as two years ago there was an article on salyrgan of a few pages. There was a laboratory report, "Where is the mercury in ionic form or other impurities?" The chemist took a tremendous amount of time. It was essential to rule out mercury in any other form than combined with that molecule.

That, in a way, is the word picture of the work we have had to do on the Council. Pharmacies have been investigating products of the shot-gun type which the manufacturers have the effrontery to sell

under claims either secret or semi-secret.

Through the caffeine that exists in coffee we entered into the examination of those products. We found products were not exactly what they were claimed. We hope we have presented to the medical profession the necessity of not knowing how much caffeine was removed. How much caffeine is there in a cup? The result of our work and considerable collaborative work, a rather expensive investigation if you please, has made us feel that the products are now on a basis in which confidence can be had, and it seems to the laboratories in the long run the manufacturers that have that attitude should be grateful for the investigation because it shows the products were not what they were claimed to be.

The work of the Bureau of Investigation, of course, is difficult. It means we have to guess until we get 100 per cent analysis. We have no books to go to to determine how to do this or that. We have a system of checks and re-checks. We must be extremely careful or the analyses are inaccurate, and we may injure someone because of some error. We must see that the prestige of our profession is upheld. You can appreciate the necessity of extremely careful work, and the laboratories always felt very grateful to the Board of Trustees for providing us with the wherewithal to permit us to do good work. There is one thing that the entire force of the laboratory insists on, and that is that work should be thorough, thorough, thorough. Otherwise you might get into an unpleasant lawsuit. The Board of Trustees of the National Association have always been very generous in standing back of the laboratory.

That reminds me of the story of Long John, a prospector out in California. If there was one thing he liked it was one of the round cans of lobsters. He would send to the mail order houses for it, and he made up his mind that if there ever came a time when he struck it rich he was going to have all the lobsters he wanted.

Fortune smiled on Long John several years later so he took a trip to New York. He got dolled up in the very best clothes and was going to the very best restaurant. He went in with a good deal of swagger and they seated him at a rather prominent position in the room. The waiter came and Long John said, "I should like to have twelve lobsters."

The waiter said, "I didn't understand you, sir." Long John repeated the order, and the waiter said, "I wonder if I got

you right. Did you say twelve lobsters?"

Long John said, "Yes."

Soon the head waiter came to him and said, "We have a new waiter on and we are not certain, sir, but did you say twelve lobsters?"

Long John said, "I said twelve lobsters."

There was quite a pause, but in due time there came from the kitchen entrance a regular procession of twelve waiters, each one carrying a silver platter with the service and lobster. Long John was keen enough to see that something was up. He made the first one take off the cover, he looked at the lobster and motioned him along. He had the second one remove the cover and he motioned him along, and the third, the fourth, and so on until he got down to the seventh one. Then he said, "Heaven knows that is the only way you can get a decent lobster in New York." (Laughter)

The chemical laboratory has to use a certain amount of selection, but it isn't quite that crude, in taking up the various problems. It cannot take up all the various things that the medical profession as individuals would like. We should like to cooperate with you County Secretaries as fully as possible. If you have any inquiries to ask about any product, don't hesitate to ask. We cannot do any work for individual physicians, and we must take up only those products that are of interest to those at large.

I want to express to you the appreciation of having as colleagues men who are exceedingly devoted to the work and excellently trained. I hope when you go through the tour of the building this afternoon you will have time to investigate the laboratory as thoroughly as possible and meet these men. Our laboratory is not perfect. We are open to criticism. We also think we have pretty good principles and we are glad to discuss them with you. (Applause)

Dr. Warnshuis: The next is the Bureau of Investigation, Dr. Cramp. Little needs to be said about Dr. Cramp. If anybody deserves a medal for having rendered a service to the American people Dr. Cramp is entitled to that medal. (Applause)

Dr. A. J. Cramp: Mr. Chairman and Gentlemen: The Bureau of Investigation is a later name for what was originally known as the Propaganda for Reforms Department of the Journal. The work of the Bureau, or the Propaganda Department, is an outgrowth of the work of the

Council on Pharmacy and Chemistry. The work of the Council will, of course, be described by Professor Puckner, who speaks next.

As you know, the Council was created essentially for the purpose of giving the medical profession unbiased facts regarding products that were offered by pharmaceutical houses to the profession for prescription purposes. It was not, as a great many physicians seem to think, created for the purpose of investigating patent medicine. The Council has never made a practice of investigating what are colloquially known as patent medicines; that is to say, those packaged medicines which are put up for the purpose of self medication and sold direct to the public.

It is a fact, however, that a great many products that originally came on the market as prescription products have graduated into the patent medicine field, and glycothymoline, sal hepatica, peptomangan, and a score of others, are some that you can think of as well as I can.

It started out, nominally at least, as prescription products advertised only in medical journals and therefore, of course, highly ethical. As soon as the unthinking and careless physician had made a name for the stuff by prescribing this in the original bottle, with the name blown in the glass so the public was well acquainted with it, the manufacturers made up their minds that their product was now sufficiently known that they could go on the market without any hesitation as a true patent medicine which they always were from the time they were created. So that there is no very clear line of demarcation between the patent medicine and the so-called ethical proprietary of a certain type.

The Bureau of Investigation came into existence because as the doctors began to be interested in the problem of deception in the proprietary medicine field they also began to ask questions about the cruder proprietaries, the so-called patent medicines. Their patients would come in and ask them, as they do daily, "What is in this patent medicine I have been taking? What do you know about it?" The doctor would have to admit that he knew nothing about it because at that time there was no literature available. The state had not done any work worth mentioning in the analysis of the packaged medicines, and there was absolutely no information available.

They would write in to the Journal of the American Medical Association and if

it were possible for us to hunt through the records and find that some analysis had been made at some time we sent that information, but more often than not twenty years ago there was no information.

After the creation of a laboratory by the Association, it gradually became part of the laboratory's work to take up for analysis some of the more widely advertised patent medicine about which we received many inquiries, and which are generally distributed over the country.

At this point, I should like to suggest that many physicians are disappointed because they send in to us either a specimen of some patent medicine or request some information about patent medicine that has never been analyzed and ask that we immediately analyze it and report what we find. It is obviously impossible for the American Medical Association to analyze every patent medicine that is on the market, and in order that the work the laboratory does be of the greatest value to the greatest number we have established a general rule that we will take up for analytical purposes only those products that are nationally advertised, as a rule, and about which we receive many inquiries. In that way the expensive and time-consuming work of the laboratory proves of benefit to the greatest number. We have to turn down daily requests from physicians for analysis of patent medicines for which we have had very few or no inquiries previous to the one which comes in. I mention this fact because it is possible that some of you may have thought of sending in requests for information of this sort.

The big work of the Bureau of Investigation is not the weekly article that appears in the Journal, or the occasional article that appears in Hygeia, by which the Bureau is best known, but the big work of the Bureau is that of answering inquiries. During 1928, if we had had twenty more inquiries we would have had just an even 10,000. We had 9,980, and every inquiry was answered by an individual letter. I should say that in 97, or possibly 98, per cent of the answers we were able to give the inquirer some information of value. It is very rare that we can't be of some help to those that write in for information, and considerably more than half of the inquiries were from laymen during the past year. Twenty years ago, if we got a letter from a layman a week, possibly a month, it was unusual. Now, as I say, we got last year

from laymen alone 5,743 inquiries, with 4,237 from physicians; more inquiries from laymen than from physicians. The reason is rather obvious. Hygeia has broadcast to the country the fact that the American Medical Association has this service and the public is taking advantage of it. Then the Association itself is broadcasting daily from headquarters here and the public is learning through that source.

The answers to inquiries are the real work of the Bureau. In addition to that there are the articles that I have mentioned that appear weekly in the Journal, and the occasional article in Hygeia. These articles are written for the public. Although they appear in the Journal of the American Medical Association they are written with the public in mind and not the profession. They are reprinted in pamphlets and are entitled, "Cancer Cures," "Female Weaknesses," "Cosmetics," and so on, so that they may be sold at a nominal price and easily. In addition to selling them practically at cost, there are thousands of these pamphlets given away every year.

One woman writes in and says, "What can you tell me of Lydia Pinkham's Compound?"

We say, "We are sending you a complimentary pamphlet in which you will find Lydia Pinkham's Compound and several other remedies described in detail." The result is that woman gets the pamphlet, sees other pamphlets she may be interested in and that some members of the family are interested in and they order the other pamphlets. In that way the pamphlets are getting distributed. You may be interested in knowing that considerably more than 1,000,000 of these pamphlets have gone out either sold or distributed free.

In addition to the pamphlets, we also have the book, "Nostrums and Quackery," which is now in two volumes and a third volume will be out probably the latter part of this year. The two volumes of "Nostrums and Quackery," contain more material on patent medicine and quacks than are found between any other four covers anywhere. That is as it should be. No other organization has done the work that the American Medical Association has done and has spent the money that the American Medical Association has spent in giving the facts to the public on this subject.

In addition to the pamphlets and the books, we have a number of educational

posters, forty in number, dealing with various phases of the patent medicine evil. These call a spade a spade and are very definite. They are being used in schools and colleges. They are being used in county fairs and state fairs, health exhibits and, as I think most of you know, a complete set of these posters are yours for the asking. Any County Secretary who will write in and say, "We are going to have an exhibit, let us have your posters," will be sent a complete set without the slightest cost to the Council. All we ask is that they be exhibited. Ordinarily these posters are sold at a nominal price.

In addition to the posters, the pamphlets and the books, we have a set of lantern slides and film strips covering the same subjects. The lantern slides are sixty-two in number covering several phases of the nostrum evil. They are for the use of physicians and health officials who wish to illustrate talks with lantern slides. We hope to have some additional material very soon which has been prepared during the past year.

My time is up, but I shall be pleased to give you further details regarding the work of the Bureau when you are shown around the building. The Bureau's office is on this floor and it will probably be one of the first you will come to. At that time I shall be pleased to answer any questions regarding the Bureau's work and show you just how the wheels go around. (Applause).

Dr. Warnshuis: I want to take this opportunity of supplementing what Dr. Cramp has just said, as well as to acquaint the Secretaries with a little piece of work that has been going on in the state of Michigan during the past week. The first thing on my desk last Monday morning was a letter from Dr. Donnelly of Detroit, and which he wrote to every supervisor in every county in Michigan, stating that if the supervisors would send the cancer cases in their county to him in Detroit he would cure them with this new serum injection, and that he would charge rates just as the Mayos do. Those who were unable to pay, he wouldn't charge anything; those who were able to pay something he would charge according to their means.

This piece of solicitation stated that these patients were to be sent to St. Mary's Hospital in Detroit. I was naturally quite surprised at any such action of of that kind and also that the serum, or so-called radium solution, that he would

use was claimed to have cured more than 2,000 cases of cancer.

You can see what would happen with that information going to the supervisors. I got in touch with St. Mary's Hospital and they said Dr. Donnelly was without authority in making the representation, that he was not on their staff and the hospital was not countenancing anything of that nature. We had the record of Dr. Donnelly that in 1924 he was suspended for one year in the Wayne County Society, and in 1925 that suspension was made permanent. Wiring to Chicago Dr. Cramp within twenty-four hours sent me all the material they had already gathered upon this radium emanation outfit, or Radium Foundation Company from Los Angeles, showing how it was a fake preparation, and the men connected with it. Then I got hold of the staff writer of the Booth syndicate of papers, you know the eight leading papers, and yesterday he made a front page exposé of Dr. Donnelly's proposition to herd these cancer cases in Detroit.

When you get back to your county, your supervisor or somebody may say something about it. Remember, it is a quack proposition. He hasn't the authority to offer St. Mary's Hospital in Detroit and the preparation he is using has no therapeutic value whatsoever.

I have made these few supplementary remarks to show how, when we get into a jam, we can go to Dr. Cramp's department and get the low down on every preparation. I am sure the same service will be rendered to the County Secretaries as he renders to the State Secretaries. (Applause)

President Hirschman: The next talk on this list will be on another very important piece of work that has been done by the Association for a good many years, the work of the Council on Pharmacy and Chemistry. Professor W. A. Puckner. (Applause)

Professor W. A. Puckner: Dr. Cramp has reminded you that the Council of Pharmacy and Chemistry was organized for the medical profession with regard to the proprietary medicines which they are asked to use. The Council was organized about twenty-three years. It is composed of seventeen members who, I want to emphasize very strongly, serve, with the exception of the secretary, without pay. They have spent an immense amount of time and work for the Council. A large number of the members spend a very large proportion of their time in investi-

gation problems that come before the Council.

To show the enthusiasm, I may mention that Professor Novy of the University of Michigan not long ago wrote and sent in a report. He said, "Excuse scribbling, but I am flat on my back with sciatica." He had time to send in a report. That is the service the Council has been doing.

From the time the Council was organized it adopted a definite set of rules, principles by which it judges all medicines. It examines them and then publishes, either admitting them to New and Nonofficial remedies, or publishes reports explaining why they are not admitted. At first there was a great deal of antagonism, particularly from the large pharmaceutical houses, as they claimed they had means of judging medicines which were superior to those of the Council. Today I think it is safe to say that any pharmaceutical firm that has a product which they believe can be made acceptable, that product is submitted to the Council for acceptance, and the co-operation which we are getting from the pharmaceutical houses today is most encouraging.

The day of the shot-gun mixture, which was really the cause of the formation of the Council, has gone by. After the Council started to work it found that a large part of the uncritical prescribing of medicines was due to instruction in medical schools, that the teachers there had a very insufficient knowledge of drugs and were inclined to lecture about a large number of drugs and not give much information about any.

The Council then went to work and published a book on "Useful Remedies," in which are described the better drugs which can be made the basis for instruction in medical schools and which today is used as a basis for examination in state board examinations to a very large extent.

The Council also felt that a better knowledge of the Pharmacopoeia was important. It published an Epitome of the Pharmacopoeia, and the National Formulary which gives the information contained in these books with a short résumé estimate of their value. As a result of the Council's work—I say as a result; I think the Council could fairly claim a large part of the credit—the Pharmacopoeia has been thoroughly revised so as to exclude all drugs that are of little value. Since the Council exposed the worthlessness of hypophosphates they have been omitted from the Pharmacopoeia.

So today I think physicians could well limit the prescribing of drugs to those in the Pharmacopoeia, and to those which have been found acceptable by the Council and accepted for New and Nonofficial Remedies.

While pharmaceutical houses no longer stress or give much advertising publicity to proprietary mixtures and worthless concoctions, the price lists still list a large number of them. That probably means that physicians are still prescribing them to some extent, and while there is little propaganda made for them, yet the total prescribing must be considerable.

Physicians often ask, "How can we support the Council on Pharmacy and Chemistry?" I think the answer is very plain. Proprietary products that are worth while are today submitted to the Council and accepted for description in New and Nonofficial Remedies. A proprietary product which has not been accepted I think can well be put aside by the physician until it has been passed on. If he will limit himself to the prescribing of proprietary medicines which have been accepted and beyond that stick to the pharmacopoeia drugs I think he will do full benefit to himself and his patients.

The Council has accumulated a large amount of information, and just as Dr. Cramp sends out a large number of letters answering questions so the Council answers questions. We will be pleased, at any time, to receive inquiries from members of the Association in regard to proprietary products of all kinds, and it is very rarely that we cannot offer you some worth-while information. (Applause)

. . . Recess . . .

President Hirschman: The five minute recess having lasted ten minutes, we will now get back to business. We have all had a lot of fresh air and we are now ready for a little hot air. I now take pleasure in presenting the chief purveyor of hot air of the American Medical Association, Morris Fishbein.

Dr. Morris Fishbein: The publications of the American Medical Association are the voice of the organization, formerly a voice limited entirely to the medical profession, but now a voice going equally and just as strongly to the public.

The American Medical Association has been in the publication business strongly since about 1901, when Dr. George H. Simmons became editor of the Journal of the American Medical Association. It had at that time a circulation of about 8,000

copies. That circulation has grown steadily until today it is almost 100,000 copies, more circulation than all other weekly medical journals in the world combined.

Its influence is proportionate to the extent of its circulation and the belief that the readers have in the opinions it voices. If you will study the make-up of the Journal as it comes to you each week, you will find that it is built according to a certain definite system planned to get a certain result, as all publications must be if they are to fulfill the purposes for which they are created and maintained.

In the first place, you will find a cover listing the main features of the contents. You will find an inside cover which indexes completely every important matter in the issue for the week. You will find a number of advertising pages.

You have had something told to you about the advertising, but not perhaps some of the facts which you ought to know in order to realize what this thing means to the Association. The advertising income is somewhere around three-quarters of a million dollars. At one time advertising in medical journals was limited largely to drug products. Today the chief products advertised to physicians are foods, apparatus, drugs and books. The food products represent, by their growth in relationship to the practice of medicine and to the maintenance of health, a changing point of view relative to the care of the human body and it is a most significant observation the extent to which the relation of food products directly to the medical profession has grown.

Then come the original contributions varying in number from ten to eighteen per week, making a total for the year of from 500 to 600 original articles that are published in the Journal. There are submitted to the Journal each year about 2,400 articles, so obviously, then, about 20 per cent of the articles submitted are accepted and 80 per cent rejected. Of the 20 per cent accepted almost 300 are read each year in the annual session of the Association, so that it is safe to say that there are only 250 out of 2,200 original articles submitted that can be accepted for publication in the Journal. That makes an exceedingly difficult choice for the entire editorial staff of the publication, because every physician who writes an article takes great pride in that little contribution. If he didn't he wouldn't send it in. He feels that he merits the space just as much as any one else and in a few instances he becomes exceedingly resentful

if the product of his alleged brain work and research into the literature is rejected for publication.

The original contributions which come to us vary in quality from the simple case reports, which is probably the very best type of medical writing that any physician can do, to the almost monographic article beginning with the history of the subject, passing through its entire development down from the time of Hippocrates, giving protocols of some 200 animal experiments and the reports of 1,800 cases ending up with a summary sometimes and conclusions and not infrequently accompanied by sixty charts, eighteen illustrations, and two colored pictures.

That contribution is received at least three or four times each week—a contribution of that scope. It is obvious if such an article were to be accepted, at least fifteen physicians would have to have their articles returned to make room for this plan. It is almost an invariable rule of the Journal that every article over six pages in length is not accepted for publication. Charts are eliminated; pictures are selected only when they illustrate, and constitutes a special problem for an editor. The colored picture is very rarely published in the Journal of the American Medical Association because it costs \$1,800 to run one colored picture in the Journal in one issue, and you can see the difficulty of putting that expense upon the Association in order to please some one man's idea of the importance of a colored picture in his paper.

When an original article is received in this office the author immediately receives a card of acknowledgment. The article then goes to the listing department where it is regularly entered on a card and an opinion sheet is placed upon the article. On this opinion sheet appear the author's name, his school of graduation, the date of his birth, his residence, and any other pertinent facts that may be of importance in the consideration of the manuscript. A questionnaire is sent to the personal file, and to the nostrums and quackery department so that if he is entered in the nostrums and quackery department that fact is put on the opinion sheet. If there is anything in his personal record that would obtain in his relation to the passing of the manuscript, that is also entered on the opinion sheet.

It then goes to several of the assistant editors who read the article, abstract it, and put the abstract, the opinion sheet and their opinion as to whether or not it

should be published. The article then comes to the editor who makes the final decision and takes all the blame.

Out of this series of articles we get very few complaints. We get perhaps six men each year who object strenuously to the return of the manuscript, but seldom is the objection sufficient to override the opinions of the editorial group as to whether or not the article should be published.

We get many complaints, I suppose as many as ten complaints every year, directly by mail of the fact that the Journal is too scientific. Last evening one county secretary from Wisconsin stopped me as I was leaving the meeting and said to me that the Journal was much too scientific. That was the chief complaint that he had heard. I suggested to him as an answer to that complaint if he would take the Journal each week and read it carefully, read every article carefully, at the end of two years he would find it was not too scientific and he would be looking around for some of the special periodicals in order to get things on a little higher level. The man who says the Journal is too scientific is the man who begins one article that he cannot understand, and then never proceeds further. You cannot be educated by reading one article. You can't keep abreast of science today by reading the work done in any single field of modern medicine.

After the original articles, we have special departments devoted to the Council on Physical Therapy, and the Council on Pharmacy and Chemistry. The reports of the Council on Physical Therapy are very fundamental, and since this is entirely a new field for most medical practitioners reports ought to be read by every physician very carefully. That list of definitions that is now being published in the field of physical therapy is one of the most important things that has ever been printed because without the language of a new specialty or new field of medicine it is impossible to have any comprehension of the field.

The reports of the Council on Pharmacy and Chemistry keep you abreast of all the new drugs that have been found to be worthy, and in addition to this the preliminary reports that are published on drugs not yet found to be worthy will give you an inkling of what to expect for the future. They will give you suggestions as to medical research and help you out in many other ways.

Then come the editorials. The editor-

ials are planned for two purposes: first, to make plain in simpler language the extremely scientific work that is done in the fundamental sciences, physiology, pharmacology, and so forth, to interpret these in relation to clinical practice, and to inform you as to social, medical and economical movements that affect the medical profession. It is our hope that more and more physicians will read the editorials and act upon the ideas that are there presented with a view to getting united action within the profession. It is only by united action through the organization that the medical organization is able to make its will felt in any way.

Following the editorial and current comments, comes a department known as the Association News. This department gives you regularly the abstract of the reports of the Board of Trustees of the House of Delegates, information concerning the annual session, information concerning the various exhibits and other activities of the Association. If you will take advantage of the things there offered you will get a great deal more use out of the Association. Primarily the greatest difficulty that affects the Association today is the fact that the members do not seem to realize what it is that the Association has to offer them. It is only by being informed of these services that you can avail yourselves of them. Our News Department has grown steadily under a news editor, Dr. Hammond. He has been with us now, I think, a little over six years and that department now records all developments in hospital construction in education, in the activities of County Medical Societies, speakers who are going about the country barn-storming or for other purposes, and County Secretaries who follow the News Department not only of his own state, but of all the states, will find in the records of programs given in other states, neighboring states particularly, great opportunity for picking up material to build up a program for his own County Medical Society. You will find constantly listed the names of speakers and the subjects on which they are speaking, which will enable you to keep abreast with what other County Societies are doing through the News Department.

Our foreign letters now cover practically the entire world with special correspondence in almost every great city in Belgium, in Holland, in Poland, in Austria, Germany, London, France, Australia, Switzerland, Russia, practically every great country in the world. All these

countries now send to the Journal through a special correspondent the news of medical advancement in those countries.

The next department of the Journal is one of the most popular. I understand it is read after the tonics and sedatives, that being the most popular department of the Journal for the physician who wants to keep abreast of modern thought, and that is the obituary notices. The obituary notices are always read immediately after the tonics and sedatives as the second most popular department of the Journal. Every physician apparently wants to find out what is happening to the competition. (Laughter)

Then comes the section of the Journal devoted to the Bureau of Investigation, and we try to vary our frauds. We have all kinds, but we try to vary the matter in discussing diet one day, mechanical apparatus by quacks another day, and very little of late dealing with the old-time patent medicine. There is so little of that in proportion to the advancement of quackery in other fields that there is seldom discussion of the old-time patent medicine. The quack keeps abreast of modern science exactly as does the physician and he takes advantage of every new discovery in medicine to develop a quackery that parallels that.

If you will look at the page of nostrums devoted to influenza which is published in this week's issue that has been distributed to all of you, you will see how closely the quack keeps abreast of activities in the field of medicine.

In the Department of Correspondence every physician is given an opportunity to get off his chest any complaints that he may have concerning the articles that have been published, activities indulged in by the Association, or similar matters.

The Questions and Answers Department has had a tremendous development within the last five years. We have had several letters from doctors who have pointed out the significance of the fact that 90 per cent of the men who ask questions sign the letters, "Please do not print my name." The majority of the questions have to do with desire for assistance in diagnosis or to settle an argument as to a question in diagnosis. All of these questions are referred to authorities for reply. Sometimes one question will be referred to five or six different authorities in order to get a reply that will represent the last word on the subject.

These questions are answered by the Laboratory Department, the Library De-

partment, and in all of our special departments in this office as well as by a staff of at least 100 different people who answer questions regularly who are outside the headquarters office. The questions and answers for publishing are selected by the editor. The Journal, however, takes all the responsibility for the answers since none of the answers are signed.

In the Department of the Council on Medical Education that work is covered regularly. Then come the book notices. After that the Medico-Legal reports which give you the Supreme Court decisions in every case affecting a medical practitioner.

Finally, the Society proceedings which give you the reports of the main scientific societies in abstract form, and then the current medical literature. The current medical literature is prepared by a staff of at least ten abstracters and editors who look through practically all the medical periodicals of the world, over 800 different medical periodicals being looked through each month, and pick out articles which seem to be significant and important for permanent advance in medicine, and abstracts of these articles are printed.

In addition to this, we have arranged through the Journal to supplement the abstract service by lending to any physician from the Library Department any of the periodicals regularly abstracted so that if a physician sends six cents, which merely covers the postage and none of the other incidentals—it practically does not cover the postage any more—he can obtain for reading a special article in any of the foreign or domestic periodicals which has been abstracted. If any physician will send a request to this office that will be loaned to him for a period of three days so that he can look up this particular matter. That is a supplementary service to the current medical literature department, and over 2,000 periodicals were loaned under that service during 1928.

The Journal is supplemented in its activity for the enlightenment of the profession relative to modern medicine by our special periodicals. The first of these to be established was the Archives of Internal Medicine. We now have the American Journal of Diseases of Children, the Archives of Pathology, the Archives of Otolaryngology, the Archives of Surgery, and our newest publication in this field is the Archives of Ophthalmology. The Archives of Ophthalmology is a continuation of the old Archiv für Augen heilkunde printed abroad and in this country, and it will

make its first appearance in the American Medical Association in about five days.

These periodicals are published by the Association at a present loss. Most of the loss of all the other departments, and most of the other activities of the Association is borne, of course, by the present advertising income from the Journal of the American Medical Association. If you will just compare, for instance, what you get when you buy a book for five dollars and what you get when you buy the Journal of American Medical Association for five dollars, you will realize that your five dollars does not cover much more than the cost of the paper and the mailing. The Journal is giving you about 4,000 pages per year for a sum of five dollars.

These special periodicals are aimed to carry on progress in modern medicine through keeping the men who are doing advanced work abreast of the work that is done in research laboratories, in clinics and in hospitals. They have grown in size from some sixty to eighty pages, which was the average size of these publications when they were first begun, to approximately 200 to 250 pages which is the usual size today of an issue of the Archives of Neurology and Psychiatry, or the American Journal of Diseases of Children.

These things have met with a tremendous reception by the American medical profession, and the sad part of it is that not sufficient physicians take advantage of what is practically a gift by the Association. Each one of these periodicals costs almost twice as much as the doctor pays for it.

Hygeia represents our contribution to the education of the public. Hygeia now has a circulation of 85,000 copies per issue. I want you to remember that because that is a tremendous circulation to have built up in this period of time for a publication of that nature. The publication has carried itself, at least within the last five years, so that it does not represent an outlay on the part of the physicians of the country for the education of the public. Hygeia circulates primarily to the public. The number of physicians who subscribe to Hygeia is relatively small, approximately 14,000 of the 85,000. That figure is a pity to contemplate. Certainly, of the 85,000 who subscribe regularly for the Journal, which has a circulation of almost 100,000, at least half should be taking Hygeia for their reception tables. When you go into the average physician's office and see the kind of truck that he does have on the reception table

instead of Hygeia, you wonder why it is he has failed to realize the value of this periodical to him in that way.

I believe that some sustained effort ought to be made among the County Medical Societies, particularly during the coming years, to bring the physicians' subscriptions for Hygeia up to at least that of the school teachers. Our school teachers subscriptions for Hygeia are far beyond the number of physicians that we have for that publication.

Another important publication is the Quarterly Cumulative Index Medicus which represents a combination of the Index Medicus, published in army medical language and begun by John Shaw Billings, and the Quarterly Cumulative Index established by Dr. Simmons in 1916. The Quarterly Cumulative Index as originally established aimed only to index the contents of 300 medical periodicals. The Index Medicus aimed to index only the important articles in all of the medical periodicals of the world. The Index Medicus was a useful work but never completely successful. The Quarterly Cumulative Index was apparently not quite sufficiently complete so that a combination was arranged between these two publications, and in the Quarterly Cumulative Index Medicus are now indexed regularly over 1,400 periodicals. There are about 1,800 medical periodicals published in the entire world. Over 1,400 of these are fully indexed in the Quarterly Cumulative Index Medicus, which means that 250,000 separate items are indexed each year.

There are employed on that work more than twenty people merely for the collection of the material that goes into the book. Obviously it is published at a present loss, a portion of which is borne by the Carnegie Foundation, and the major portion of the loss borne by the American Medical Association, again for the aid of the advancement of modern medicine because it is only by keeping abreast of the knowledge that is available that one can make definite progress in this field of medical science.

Our other publications include the book publications, samples of which you will find on the tables. These book publications are mostly reprints taken from the Journal of the American Medical Association, of material that is believed to be of value particularly in the field of clinical medicine. Also such publications as the Directory, the reports of the various Councils, the numerous pamphlets circulated by the Bureau of Health and Public

Instruction, by the Bureau of Investigation, by Dr. Caldwell's Council on Medical Education and Hospitals, and you also have some definite knowledge of what all of these things are. You are not getting all that the Association can give you as a member of the organization.

The library service is definitely associated with the work of the Publication Department. It prepared the indexes for all of the publications. You will find the library just outside of that door. It prepares the Quarterly Cumulative Index Medicus, and it has two special services which are given to the individual physician, in addition to the lending of periodicals. The first and most important of these is the package library service. This again was inaugurated about five years ago.

The package library service provides for sending to any physician, on payment of twenty-five cents, a complete package of periodicals and of reprints and references on any subject in which he may be interested. He is entitled to keep this package for one week, making his notations and abstracts in order that he may prepare a paper for use before his County Medical Society. Beginning with a few hundred the first year, several thousand are now requested each year by the physicians of this country, and it is extremely interesting to see the requests come for the package library service, and then to receive the paper for publication in one of our periodicals after he has read it before his County Medical Society. So that we are able to trace this little product from conception to delivery. (Laughter)

The package library service is one with which you should all be familiar. Of late we have had to call on the County Medical Society Secretaries for an additional service directly to this office. There are a few physicians pusillanimous enough to send for a package and then fail to return the material, and fail to respond even with a letter to five or six written requests for the return of the package. When you consider that the man is given about fifteen dollars' worth of service for twenty-five cents as his benefit for membership in the organization or subscription to periodicals, you would ordinarily feel that he would be anxious to fulfill all of the rules. About fifteen men a year fail to return the package.

The cost of replacing a package is considerable. In fact, it is sometimes impossible to replace some of the material that is sent out. So that of late we have en-

deavored to get action on packages that are not returned by writing to the County Secretary and asking him to make a personal visit to the man who has failed to return the package and ask him to return the package or explain why. I am very glad to say that in at least ten instances the County Secretaries have co-operated fully and we have gotten back packages that we had given up for lost. In a few instances we have been unable to get a reply from the County Secretary either, and I don't know who one would write to after having lost out with the man to whom the package was sent and the County Secretary. We are planning to make personal visits to these people to find out whether every one in the town is dead.

The other service given by the library is the supplying of references and answers to reference questions in periodical literature. If a man wants to write a paper on any subject and make a complete survey of the literature he can get a beginning list of references by sending to this office his subject. We then look through all the indexes and available periodicals and send him a list of the references. He may then ask for the periodicals concerned in the references, receive these two or three at a time and in that way work up his entire paper regardless of the size of the town in which he may be situated. There are only a few hundred medical libraries in the United States. It is possible in this way for a physician who lives in a small community hundreds of miles from a medical library to work up a paper that will be just as good as one that could be worked up by a man in any of the large cities. (Applause)

President Hirschman: You have just listened to a man who has charge of more leading medical publications than anybody else in the world. I think his talk has been very informing.

One Bureau of the Association which has rendered a service which I believe is just beginning to be appreciated in the last few years is the next speaker. The Bureau of Legal Medicine and Legislation is doing a work which touches the work of every one of us. We will be pleased to listen to Dr. W. C. Woodward, head of the Bureau of Legal Medicine and Legislation. (Applause)

Dr. W. C. Woodward: Mr. Chairman and Gentlemen: The Bureau of Legal Medicine and Legislation is one of the younger branches of the Association's activities, having been organized in 1922.

Its prime purpose is to look after the legislative interests of the profession. Incidentally, it does what it can to assist the profession in some of the medico-legal problems that present themselves to it.

The Bureau of Legal Medicine and Legislation works in the first instance with Congress and with Federal legislation. Congress and Federal legislation are matters that are somewhat outside of the province of the ordinary state or society and for that reason the national organization takes the leadership. We endeavor to follow the proceedings of Congress and of the various departments in Washington through the Congressional Record, and through the United States Daily as well as through general newspaper clippings.

During the session of Congress we keep a man on duty in Washington who can keep in touch with Congressional activity, and, as occasion requires, call for aid there.

We endeavor to aid the states in their legislative problems primarily only on the request of the state organizations. The states themselves must control and direct their own legislative activities. We are called on not infrequently by state societies for aid in framing bills, and for criticism of bills that have been framed and that are under consideration by the state organization.

When the legislatures of the states are in session we keep in touch with their activities through a legislative reporting service, and publish in the Journal each week an abstract of such of the bills before the state legislatures as may be of interest to the medical profession of the state. As we publish those items in the Journal we notify the president and the secretary of the state society, and the chairman of the legislative committee of the nature of the bill that has been introduced.

That is a service that is probably not of much importance to the larger and better organized states that are able to keep their own agents on duty at the state capitals. On the other hand, to the smaller state or to the state with a smaller medical profession, it serves a very useful purpose because it enables not only the officers of the Association in the state but every reader of the Journal in the state to know what is going on in the state legislatures.

At the present time when there are forty-one state legislatures in session in addition to Congress, it is quite a task to follow up legislative activities.

We have an advantage, we believe, over the average state organization with respect to the matter of state legislation because of the possibility of taking a comparative view. We are endeavoring to assemble as much information as we can concerning the medical legislation in the several states in order to be prepared to combat legislation when it needs to be combated, to favor legislation that should be favored, and to draft legislation where that seems to be indicated.

In addition to the activities in the legislative field, so far as the states are concerned, we try to keep in touch with the matters of medical defense in the several states. In that way we collect such information as we can concerning the activities of medical defense committees throughout the states, collate their reports and list them, and publish them annually. We do that so that each state may know how its own work in the line of medical defense compares with the work of other states, that it may know something as to the relative number of demands that are made on physicians of the state for compensation on account of alleged malpractice, and how successful the profession is in combating those demands where they should be combated.

We have endeavored to stimulate, although I believe with very little success, efforts toward the prevention of claims for damages on account of malpractice rather than the adjustment of claims after they have been made. It is easy enough for a physician to take out malpractice insurance and to co-operate with his medical defense committee, but after all every item of expense that arises out of a claim is an item of expense that the entire profession pays, and although it may seem to the individual physician when a claim against him is adjusted or paid by the medical insurance company that it costs him very little, yet when we remember that every insurance company that is engaged in defending physicians against malpractice claims and in paying claims against them charges not only amounts of the claims it pays but charges also a reasonable and possibly a handsome profit, we can see that the medical profession as a whole is really paying more by reason of medical defense insurance than it was by the old-fashioned method.

So far as the individual physician is concerned, our services are more or less incidental. We, of course, cannot undertake to render legal services to individual physicians except as a mere incident, so

to speak, to our general work. The legal profession is just as much opposed to group legal service as the medical profession is to group medical service and, therefore, we cannot represent individual physicians, so to speak. Nevertheless, in the course of a year we get very many inquiries from physicians concerning problems before them, problems involving matters of medical defense where they write to us in addition to writing to their state defense committee in matters in many cases involving questions of expert testimony where they want to know something as to the views of courts concerning certain features of cases that have come up, or want to know something as to the medico-legal aspects of cases.

The work keeps us fairly busy, and we endeavor to do it with as little splurge as possible. In work of this kind it is desirable to have the activities of the profession appear as spontaneous as can be. If we can enlist the active support of the state societies and of the county societies, and of the individual physicians, inducing them to keep in touch with legislation and medico-legal activities, and if we can induce them to take active parts in government affairs to see that proper representatives are elected to Congress and to state legislatures, and to be ready to approach those representatives in a fair way when occasion requires, the purposes of the Bureau will have been fulfilled. (Applause)

President Hirschman: I think you all agree with me that this has been a very illuminating morning, and that you are going to have much to bring back to your county societies as value to them and to the public whom we serve.

The next talk is by a gentleman who has spent a large part of his professional life in instructing people how to be physicians, and he is now spending this portion of his professional life in instructing the public how best to use these physicians. Dr. John M. Dodson. (Applause)

Dr. John M. Dodson: Mr. President and Gentlemen of the Michigan County Societies: The Bureau of Health and Public Instruction was created in 1910 at first as a Council of Health and Public Instruction. After the Bureau of Investigation had been organized to seek information about patent medicines and nostrums of various sorts to be sent out to the public through the physicians as the only medium at that time, it became increasingly evident that the public desired and ought to have information about other matters, medical and of health character. Other

agencies poorly prepared to give this information were doing it through ulterior motives, so the House of Delegates decided that there should be a body whose main function should be to seek the proper and scientific medical and health education of the public. The Council was composed of five members and a full-time secretary. It was made a Bureau in 1923 with an executive secretary subsequently changed to a director.

I might say, by the way, that there were a number of detached committees looking after various interests that had been created by the action of the House of Delegates which were dumped into the hopper of the Council so that the work was more or less varied at the start. These were, for the most part, separated. The Bureau of Legal Medicine had duties that were at first part of the duties of the Council. There was a committee on laws for pilots, for color vision and various things of that sort. So that presently the Council came to be specifically and solely an organization to seek the medical and health education of the public.

In the earlier years, there being no machinery set up in the states or counties for that purpose directly related to the Association, it was sought to do that from headquarters. One of the first activities was the creation of a Speakers' Bureau. Some 250 or 300 physicians in various parts of the country known to be competent and reasonably eloquent offered their services for health talks to the public, and these were listed and a little book was published, one of the editions of which I hold, giving the names of the speakers, their addresses of course, and the subjects upon which they were prepared to speak. Some of these talks were illustrated with lantern slides; others not. This booklet was sent broadcast to women's organizations, Y. M. C. A., and various civic organizations that might be interested in this field.

This Bureau performed a useful service. One of the conspicuous features for a time were the Sunday talks given in the city where the Association held its annual meeting on the Sunday at the beginning of the week in which the meeting was held, the pulpits being occupied in many of the churches by leaders of the medical profession.

The Speakers' Bureau suspended operation during the war, naturally, and after the war it seemed unwise to attempt to create it. There had been found to be difficulties in seeking to control such a

large number of talks from a single headquarters. It was obvious that the state and local societies must become interested in that matter and undertake the burden of the work, and that has subsequently happened, so that the main function of the Bureau here at this time is to assist these local organizations in promoting work of this sort.

We have come latterly to use the radio for this purpose, and that was begun five and one-half years ago. Arrangements were made with KYW, the Westinghouse station here in Chicago, for a monthly talk. The talks were essential readings from *Hygeia*. They served to disseminate useful information to the public and also to advertising the magazine. These talks were given at first monthly, but were later given weekly, and last summer arrangements were made with another station to put a microphone in the building and since that time daily talks have been given at ten o'clock each morning. Something over 200 talks were given last year, for the most part by members of the organization here, but assisted at times, as this morning by your President, to whom we feel greatly obligated for his admirable talk.

It was thought also to stimulate local organizations to do work of this sort, and at one time there were talks being made in at least ten different cities whom we had asked to undertake this work, and we agreed at that time, over four years ago, to supply them with any material. Recently we have elaborated on that somewhat and we are now having mimeographed some of the talks which are given each morning in this form. This, for example, is a talk, "Reasons for Personal Health Examination," which was delivered. We have typed a list of the topics and we now have twenty-six separate talks of that sort which were prepared to send to any physician who desires to use them either for radio talks or for platform talks to any organization. There are some others being printed. We don't attempt to reproduce all of these talks, of course, but only those which seem most worth while.

Another early activity of the Council was to seek the dissemination of useful information through the newspapers and the secretary clipped and sent out large numbers of clippings and special articles each week to a large number of newspapers, at one time between 2,000 and 3,000. How many of these were printed in the Journals it is difficult to say, but

one thing is perfectly obvious to everyone: The interest in health and the demand for health information has grown with exceedingly rapidity until today no newspaper of any importance attempts to get on without publishing health information. Indeed, most of the metropolitan dailies have health editors of their own and a health column, largely syndicated of course, but the demand for this sort of information has grown very much.

In order to make *Hygeia* a more effective, more widely useful medium, it was early decided to print for each issue a clip sheet. I have a copy of it here. In connection with each issue of *Hygeia*, that clip sheet was established containing abstracts of the more important articles in the issue suitable for printing in the daily papers, and we should like to have as many physicians as possible interest themselves in this matter. If we send this to a newspaper editor the chances are very largely that it will go into the wastebasket because he gets such an enormous amount of material of that sort. If, on the contrary, his own physician, or any physician in whom he has confidence, takes in a clip sheet of that sort or hands it to him as he meets him and says, "Here is some good material that I think would be useful to your readers, won't you print it?" a great deal of useful material could receive wide dissemination in that way. We ask you to do that.

Also in the early days, the Council printed pamphlets or reprints for various purposes. A large series, for example, was prepared by the committee on protection of research to check the anti-vivisection enthusiasts. Our use of animals, as you all know, for research purposes is of absolute vital importance to the advance of medicine, and it is threatened constantly every time the legislature meets. We have in the legislature of Illinois at this time a bill that would seriously hamper the scientific man in the use of animals. So a series was prepared of a total up to date of thirty-two pamphlets on this subject: The series on the conservation of vision, another on cancer—since *Hygeia* was established these pamphlets have been largely reprints from it—an article on foreign bodies in the air passages, one on obesity which the physician can give to his patient whom he is seeking to get to eat a little less and grow a little less in weight, one on diphtheria prepared by recognized authorities which can be used to great advantage in a campaign to promote the inoculation against diphtheria.

Here is a reprint from several articles in Hygeia entitled, "A Child is to be Born," and is for the use of the mother in the pre-natal stage. A list of these documents is published in the catalog of publications of the Association, and I think copies have been handed to you. If not, you can procure them by simply asking for them.

I believe one of the most important functions of the medical profession at this time is the medical and health education of the public whose mistaken movements we criticize so severely. If they are to be taught not to make mistakes, if they are to be taught the right things to do and educated as to the right attitude toward the medical profession, it must be largely through our efforts. We are prepared with these documents, and of course there are many of them published by other agencies to assist in that movement.

Another function that has been part of the work of the Council is the promotion of periodic health examinations which, as you know, was adapted as a regular procedure or approved as regular procedure by the American Medical Association at its meeting in St. Louis in 1923. It was ordered that a blank be prepared for that purpose and this was printed. About half a million copies of this blank have been distributed to physicians all over the country, and it is being more and more used.

This movement will not grow of itself, however, and I should like to mention briefly in this connection what I believe to be the most effective way of promoting this activity and of educating the profession in regard to it which has yet been developed. In the state of North Carolina the progressive health department of that state has now in its employ a man who gives his whole time to the promotion of this movement. He goes from community to community and keeps in touch with the profession. He gives a demonstration to the doctors themselves of these periodic examinations, how they should be conducted, how the advice should be given, and in that way gets them interested. I think it is one of the most important and promising activities that is now being done.

I regret, however, that it is solely an activity of the health department in that state. That, it seems to me, should not be the case because it conveys the impression that this is a public health service to be rendered without cost to the individual. Of course that is not the case. The original resolution passed by the American Medical Association commending this

activity and urging it upon physicians stated very specifically that it should be done without cost only in the case of the indigent. The fact of the matter is the education of the public is proceeding more rapidly in that matter, and more satisfactorily than the education of the profession in many quarters, and doctors are being waked up to its importance by being called on to give such examinations. It is of vital importance that when they are called on they give an adequate, worth while examination.

A manual showing how to conduct such examinations was printed. I presume most of you have copies. In many cases a state-wide distribution of this manual was secured by action of the State Medical Society.

Just recently we reprinted an article which was written by Dr. Haven Emerson, in a sense the father of this movement, in Hygeia in one of the early issues, and this edition of 1,000 which was printed less than two months ago is already exhausted. This is entitled, "What is a Health Examination Anyway," and it discusses in language intelligible to any layman why it is worth while to take an examination of that sort. It is an attractive document and could be used by the physician to great advantage.

Two other activities might be mentioned. Of course one of the functions of the Council, naturally, was the contact with lay organizations, and one of the most important of these was the association with the National Education Association, a body numbering now nearly 200,000 members and having a tremendous influence among the teachers of this country.

Fifteen or sixteen years ago there was formed on the initiative of the A. M. A. a joint movement to promote study and solution of the health problems in connection with the schools, and that committee has since been actively at work. I think a good deal of the amazing progress which has been made, the amazing advance in interest in this matter in the last fifteen years is largely to the credit of that joint committee. You may be interested to know that recently the relationship of that joint committee to the national education itself has been somewhat reorganized on lines that I am sure promise more effective work than has already been done, even.

Another organization that is doing a great piece of work is the National Congress of Parents and Teachers, and one

of their most important activities is the pre-school campaign or the pre-school examination as it is called, the examination of pre-school children to secure the detection and amendment of defects, both physical defects and defects of habit which would hamper their work in the school. There has been some misunderstanding on the part of some of the physicians and on the part of some of the members of these organizations, but I am convinced that here is an opportunity for splendid work, cooperative work- between the physicians and the members of these organizations.

The president of the Congress, Mrs. Reed, who organized this movement, has agreed in seeking the aid of physicians to make the preliminary survey of these children. They will not call on individual physicians, but will call on the county or local medical society, so that there may be a clear and definite understanding of all of the physicians in regard to this matter. I should like to urge upon you, when such request is made for conference in regard to that matter, that you welcome it heartily and enter into conference with these women and with the members of the local Parent-Teachers organization in the right spirit. They don't want to abuse our free service, I am sure. They don't want our help in educating the public to the importance of this examination of the pre-school child, and until the public is educated we can't expect them to come to us asking for service and expecting to pay for it.

These are the main functions of the Bureau, and we should be glad to give you further information as you call, and to send you copies of any of the publications that you think might interest you. (Applause)

President Hirschman: I think we all have a better understanding of the activities of the Bureau of Health and Public Instruction, and appreciate its value more than ever.

One of the younger children of the organization, and a Council which has been extremely useful to us in the last few years, is one which has investigated and is trying to classify in a definite scientific manner the various methods of applying physical therapy. A good many physicians had to get their first instruction in physical therapy from detailed men and glib-tongued demonstrators at commercial exhibits. Now the Association has taken the matter in hand, and in the hands of Mr. Holmquist they are doing a wonder-

ful piece of scientific work which we will now hear about. Mr. Holmquist.

Mr. H. J. Holmquist: Mr. President and Gentlemen: As the Chairman has stated, the Council on Physical Therapy is the youngest department of the Association, its organization having been completed by the middle of the year 1926. The membership of the Council comprises physiologists, physicists, pathologists and clinicians. This provision on the part of the Board of Trustees has proved very wise. A Council composed of specialists, recognized authorities in these fields, is able to consider thoroughly all phases of physical therapy.

The function of the Council, the purpose of the Council is to protect the profession against fraudulent advertising in connection with the sale of medical apparatus, against useless and harmful devices for physical therapy. To promote a sound and conservative use of physical therapy as an adjunct to proper medical and surgical care, the Council supplies unbiased information in the field of physical therapy and biophysics by fostering the investigation of fundamental problems in physical therapy and biophysics, and examines and reports on apparatus used in this field of therapy.

The information is supplied to the profession by correspondence, by special articles, by radio talks, and by speakers before medical and other scientific societies.

The Council has been impressed by the need for more information regarding the effect of radiant energy of various types, and has therefore decided to grant money or apparatus to men investigating fundamental problems.

On the approval of the Board of Trustees, a committee on scientific research was appointed by the Council to distribute a fund appropriated by the Board for this purpose. The Council feels that it is of the utmost importance that in any such investigation physicists, biologists and clinicians should co-operate closely. It is important that the type of energy, the sources used in this investigation be carefully calibrated. It is also important that the effect of such energies on normal tissue as well as on diseased tissue be determined.

There has been much clinical evidence collected. Unfortunately, a great part of it is of an uncritical contradictory nature. Probably the reason for this is that not sufficient attention was paid to the quantity and quality of the electrical or radiant energy used. The findings of the

biologist and the findings of the clinician often are at variance. The reason for this is probably that the biologist and the clinician are dealing with entirely different types of tissue so far as response to radiant energy or electrical energy is concerned.

The Council considers apparatus in a manner similar to the manner in which the Council on Pharmacy and Chemistry considers pharmaceutical preparations. A set of official rules have been adopted for guidance in passing on these devices. In order that a device be acceptable for inclusion in the Council's list of acceptable devices for physical therapy, the manufacturer of that device must furnish the Council with a complete description of the construction and operation of the device. He must also furnish the Council with sufficient evidence of the effectiveness of that device, and his claims made for the device must also be in harmony with the evidence available to the Council.

The Council's activities have been primarily educational. The Council is working in a field that has as yet been inadequately explored from a critical scientific point of view. Before sound progress can be made, many of the rather absurd theories with which physical therapy is now encumbered must be exploded.

To place physical therapy on a sound basis, and to promote sound progress, the Council decided to publish a series of articles on physical therapy in which all that is definitely known concerning the merits and limitations of these devices is given. These articles are written by members of the Council and by other recognized authorities in the field in which these articles deal. Before publication, however, all of these articles must be approved by the members of the Council. Members of the Council act as editors of these articles. The articles will deal with X-rays, rays from radium, ultra-violet rays, infra-red rays, or heat rays, hydrotherapy, mechanotherapy, therapeutic exercise, occupational therapy and in fact the work of the Council stretches over the whole spectrum.

The Council believes that a manufacturer of a medical device must give as much information concerning the emission characteristics and the electrical characteristics of that device as a manufacturer of a pharmaceutical preparation must give concerning the composition of that device. The Council, therefore, requires a complete description of the emission characteristics of all lamps. We must

know not only the intensity of the light, but just where the light is delivered in the spectrum, how much ultra-violet; in other words, the spectral energy distribution curve. Physicians with calibrated sources of that nature will know to what they can attribute the results that they get.

To simplify the reporting on apparatus, the Council is drawing up a set of questionnaires. I rather object to the term questionnaire; rather, a list of questions calling the attention of the manufacturer to the particular information that the Council deems necessary. These questionnaires, or instruction sheets, will be for infra red generators, ultra-violet generators, diathermy machines and various other devices for physical therapy.

As stated before, the Council believes that the emission characteristics should be as definitely known as the composition of an acceptable pharmaceutical preparation is known. The reports on these devices, whether favorable or unfavorable, are published in that section of the Journal devoted to the activities of this Council. In these reports the Council attempts to give such information concerning the construction of the device and the characteristics of the device as will enable a physician to choose intelligently the particular type of apparatus that will meet his requirements.

You are cordially invited to visit the office of this Department, which is on the sixth floor. Any further questions that you may like to ask, I shall be very glad to answer.

Thank you. (Applause)

President Hirschman: I am sure we will all be glad to avail ourselves of that information, because I feel that that is one department of therapy with which we are all at least not very familiar.

Before calling on Dr. West, who will speak on "Your Association," for the benefit of those who came in this morning and didn't have the opportunity of hearing our President-elect last night, I am going to call on Dr. M. L. Harris, President-elect of the American Medical Association, to give us a few words at this time. (Applause)

President-elect Harris (American Medical Association): I was milked dry last night. You can't milk the same cow twice. (Applause)

President Hirschman: We are very grateful to Dr. Harris for the cream which we just received.

The next speaker you know so well it is

perfect folly for me to even present him, but I just want to tell him something that he needn't worry about plenty of time because he is so interesting when he talks. If he needs more time we will omit the eleventh item. Dr. Olin West will talk on "Your Association."

Dr. Olin West: Mr. Chairman, Gentlemen of the Conference: I have been disappointed, or rather I should say that I am regretful that it has been so utterly impossible for those who have spoken to you here this morning, to give you any really comprehensive idea of the work of the American Medical Association. To do that would necessitate an excursion into details that are important and that need to be understood in order that the whole work of the Association may be properly evaluated, for which time was not available.

There are a number of official bodies of the American Medical Association that have not been mentioned here this morning which render service that is absolutely invaluable for the benefit of every decent practitioner of medicine in the United States and, for that matter, in the world.

Such a body is the Judicial Council of the American Medical Association that is charged with the duty of interpreting rules of law and procedure, rules of ethics, and with dealing with the tremendous number of questions affecting these matters that come up for their consideration. That Council is composed of five practitioners of medicine, men who have arrived at that time of life and at that point of distinction that makes them unreachable and that puts them beyond any possibility of having any axe to grind. They have been chosen because they have been believed to be men with judicial minds. Their service to this Association has never been fully appreciated and perhaps never will be.

They come here when they are called and therein, Mr. Chairman, is one of the glories of the American Medical Association, and it secures without money and without price whenever it may be necessary the services of the very best men of the medical profession of this country. Without question, I can telegraph today to 100 of the biggest men in the United States and ask them to come to this building the first possible moment and they will be here with never a question asked, and when they come they will deal with whatever has to be dealt with and will stay as long as may be necessary to do it.

I have seen the Judicial Council meet

here at nine o'clock in the morning and sit right straight through until two-thirty the next morning with thirty minutes for a bite of pie during the day and another thirty minutes for a bite of pie in the evening, dealing with questions of importance to you and every other member of the medical profession of this country and giving their very best thought and attention to these questions without any view or any thought of compensation of any kind whatsoever.

Our Council of Scientific Assembly is charged with the duty of supervising the scientific work of the Association. It meets whenever it is necessary and stays as long as may be necessary.

The secretaries of our sections do a tremendous amount of work for the promotion of scientific medicine without any compensation whatever. Their services are always available when needed.

We have a number of special committees in addition to these standing committees that you have heard something about this morning. For instance, we have a Committee on Scientific Research through which the Association makes available every year approximately \$15,000 for the purposes of scientific research. It turns the money over to the men who are engaged in the study of problems which this Committee believes are worth investigating. There is never any large sum for any particular problem, but always enough to really help these men who are undertaking to solve scientific questions that affect the practice of medicine in a very peculiar way.

We have a Committee on Moving Picture and Visual Education, which has recently been organized, from which we expect some very valuable service, and we have other committees too numerous to mention. We have a Committee on the Protection of Scientific Research that you never hear about, that works constantly and works in a big way for the protection of scientific research, and that job is a very difficult one.

We have other important committees that you rarely hear about and there, Mr. Chairman, I want to take time to say that there is a tremendous amount of work of the American Medical Association that is never advertised, that cannot be advertised for the reason that much of it meets obstruction of one kind and another which can only be worn away by constant effort, and sometimes we have to attack and withdraw and wait for another opportunity to attack.

There is a disposition in evidence to censure some of our state medical societies and the American Medical Association because they do not produce immediate results on this, that or the other matter. It may interest you to know that through our Bureau of Legal Medicine and Legislation a great deal has been accomplished for the benefit of the medical profession, and more particularly for the benefit of the public that has never been mentioned in any official report, has never been advertised in any statement that has ever gone out. It may also interest you to know that that Bureau and others are working on matters that are of particular interest to every physician without the production of any immediate results, and it may interest you also to know that nevertheless they are at work.

That is another one of the glories of this Association, Mr. Chairman, that in so far as I have ever been able to discover there isn't a quitter in the whole bunch. We may be licked; we may make our mistakes, but we don't quit and we are pegging away the best we can on many of these questions in which you are interested, and we hope eventually we will get results. We do know that in some instances we have gotten quite worth-while results with which you are familiar. For instance, after a long and tedious fight with many serious obstacles in the way we have gotten to the place where the Board of Tax Appeals has ruled that you may deduct from your income tax returns the amount of money that you spend in attending scientific meetings and keeping abreast of scientific medicine in that way. The reduction of the Harrison Narcotic Tax was effected with great expenditure of effort and considerable expenditure of money, and it took a long time to do it. There is one thing after another of that kind that we have worked on to good effect. There are a number of others that we are still working on and intend to work on them until our purposes are accomplished.

The topic which I am supposed to discuss here is "Your Association." That topic couldn't be discussed in a great many years. I am not going to pay much attention to it except to say that those of us here in charge of the administrative affairs of the Association never lose sight of the fact that this is your Association. The greatest difficulty we have Mr. Chairman, is to make you appreciate that it is your Association. Every brick in this building is yours, and it would be a matter

of great delight to us if you would come to so consider.

There is never a time that any member of the American Medical Association is not welcome to this building and to any service that can be rendered him in this building. The state medical association in its own state is the American Medical Association. The county medical society in its own county is the American Medical Association, and you in your community and in your individual offices are the American Medical Association. We look at it that way, and we should like every member of the Association to feel the same way about it.

There is one thing that I want to take time to mention to the county secretaries here just at this particular point as it just comes to my mind now. We are making a very strenuous effort to keep the records of the American Medical Association as complete and as near absolute accuracy as is humanly possible. We have some difficulty in doing this at times because some county secretaries appear not to appreciate the importance of accurate records and delay official reports that are of tremendous importance. An occasional man is suspended by a county medical society, for instance. That fact ought to be reported immediately to the state secretary and by him immediately to the American Medical Association. Sometimes a man is expelled. There have been a number of instances where men have been expelled because of disgraceful practice of one kind or another, whose names have been kept on our records as members and fellows of the American Medical Association because we have never had any official report concerning their expulsion. That is a matter of considerable importance and is used simply as an illustration of the value of accurate records and the need for accurate records. Unless our records are kept correct it is easily possible for us to do an injustice to every decent physician in the United States by putting in with him an indecent physician. I won't enlarge upon that any further, but I hope it will impress upon every county secretary here the need for full, complete, accurate and immediate reports in every particular where reports ought to be made.

I had something to say last night about the county medical societies and the interferences with them. Dr. Caldwell had something to say this morning about staff conferences and their great importance. I think they are important, too, but I do

not believe that the county medical society ought to allow itself to be made subservient to staff conferences in anybody's hospital, and I do not believe it is necessary at all that that shall be done. I would appeal to you again to preserve the integrity of your county medical organization in the United States and to combat every influence that would tend to destroy the county medical society as an efficient, going agency.

Dr. Warnshuis has asked me particularly to refer more minutely to some of our records that we have here, especially the biographical records. One of the important publications of the American Medical Association involving a cost of approximately \$150,000 every two years, is the American Medical Directory, containing the name and address and a very considerable amount of data about every physician in the United States and Canada. The eleventh edition of that Directory is now in process of compilation and we hope to have it off the press and ready for distribution the latter part of April. It is an enormous undertaking, but in my mind it is one of the most valuable contributions that the American Medical Association makes to the profession. In years to come, this Directory will be appreciated as constituting a biography of the American medical profession that could not be compiled in any other way.

To publish that Directory it is necessary, of course, to get the most complete data possible about every physician whose name goes into it. You would be surprised if you knew how difficult that is to do. It is not an unusual thing for us to have to tell the man that the information which he has sent in about himself is all wrong. Some of them will persist in having themselves born at the wrong time and we have to tell them about it. Some of them have apparently not discovered up to date that they have ever been born at all and we have to tell them about that. Some of them will send in the wrong names for their institutions of graduation. Some of them do that accidentally. A few of them do it intentionally, but because we have such complete records we are able to discover very promptly these intentional mistakes and have them corrected.

As you go through the building this afternoon, you will find the Biographical Department on the fourth floor containing I don't know how many cards, but there is a card for every individual physician in the United States. Not only that,

but there is a card for every intern in the United States and for every medical student in the United States, and we have information concerning those who are now taking their pre-medical courses. It is our purpose to keep up with every man who starts into the field of medicine from the time he starts until he is gathered to his fathers.

Two or three years ago I was up in Maine attending a meeting of their State Medical Association and talking to a little group of friends. An old gentleman walked up, I was introduced and they told him where I came from and he said, "Oh, yes, I was down there to that place once. I went up there and a fellow reached around in a case and pulled out a card, then he reached in another case and pulled out an envelope. Boys, they knew things down there about me that my own wife doesn't know, and we have been married forty years." (Laughter)

This file and this Directory is of tremendous value for the protection of the integrity of the American medical profession.

Dr. Cramp didn't tell you so this morning, but he has something like 160,000 individual cards about the fakes and frauds and quacks in the medical field. His information could hardly have been secured except through our biographical department and its facilities.

Nothing has been said to you about another publication of the Association which seems to fill a need of a kind and which seems to be very much appreciated if statements that come to us about it can be accepted at their face value, and that is a little monthly publication for nine months in the year known as "The American Medical Association Bulletin." This Bulletin is a very unpretentious little sheet that is intended to give you and every officer of every medical society in this country opportunity to discuss those things of interest to medicine aside from strictly scientific subjects. We should be glad to have you use the bulletin for such purpose.

There are many other activities that I can't take time to tell you about today but one of them I particularly want to mention. There was organized in Washington some two years ago a committee which has come to be known as the Committee on the Cost of Medical Care. Some lay publications have insisted on calling it the Committee on the High Cost of Medical Care. This Committee is an independent organization. It is not a Committee

of the American Medical Association nor of any other official body. It is composed at the present time of forty-three members. Dr. Harris, our President-elect, is one; Dr. George Follansbee, the Chairman of our Judicial Council, is another; the lately retired president of the Pennsylvania Medical Society is another; Dr. Stewart Roberts of Atlanta is another, and altogether there are some fourteen or fifteen physicians on the Committee. The other members represent various fields. There are statisticians, there are economists—that is what they like to call themselves and I suppose properly so—there are business men, there are teachers, and there are social service workers and various groups that are represented.

I suppose it will be all right for me to tell you something of the details of the organization of that Committee because I should like you to understand that the medical group on the Committee intends to do what it can to protect the interests of the medical profession.

I was asked to join the Committee, rather insistently asked, but made no reply until I had had opportunity to take the matter up with the Board of Trustees of the American Medical Association. We had a Committee which we call our Committee on Public Policy that sat with representatives of this Committee to find out what it was all about. I told the Board of Trustees that I wouldn't agree to go on the Committee unless it had a larger representation of physicians and made that fact known to the Chairman of the Committee, who immediately replied, "All right, select the physicians." We selected here five representative men from various sections of the country, all of whom were immediately made members of the Committee.

At its first meeting, at which this group was present, I attacked rather savagely I might say, some of the material that had been distributed by the Committee, which seemed to me to be purely in the nature of propaganda, that made it appear that the Committee as originally constituted had some preconceived notions about the cost of medical care and what ought to be done about it. As a result of that presentation, backed up by some others, it was definitely agreed that if when the final report of this Committee was ready for submission to the public, it was found that there was a minority opinion, that minority opinion should go through exactly the same channels as the majority report. I think that goes far to safeguard

the interests of the medical profession as they may be affected by any activities of the Committee on the cost of medical care.

This Committee is undertaking what appeals to me as being some tremendously valuable work, and that is to get together facts. We have had a lot of loose talk here about medical practice and how wrong it is, and about the tremendous cost of medical service of all kinds, and the impression has gotten out somehow or somehow else that the big item in the cost of medical service is the doctor's fee. While I don't know what the final reports of this Committee are going to show, I am encouraged to believe that it will show among other things that the doctor's fee is not by any means the most important item in the cost of medical service, but that as a matter of fact, when all the possibilities in the situation are considered, it is going to show that the doctor's fee is really less than it ought to be, generally speaking.

Medical service, as the term is used by this particular Committee, does not mean simply your visit to your patient and your service to your individual patient, but embraces all that is embraced in that term, hospital care, dental care, nursing service, or even taking in the cost of operations of all this multitude of social service workers and going into those details in an effort to present facts which can be considered with the hope that whatever conditions need to be corrected can be corrected.

The American Medical Association has undertaken to make one or two of the studies that will be utilized for the purposes of the report of the Committee on the Cost of Medical Care. One of them has to do with capital investment in medicine, and you will find when you get home, if you have not already received it, or you will receive within due time, a blank form which we are anxious that you shall fill out as accurately and as completely as possible, giving us information about what you have been called upon to invest in order that you may come to be a practicing physician, and what you are called upon to invest from day to day in order that you may render the best service of which you are capable to the public.

Those forms are sent to you without any place for any signature of any kind. Your name will not enter into the matter at all. When the form comes back we won't know whether it comes from John Jones or Bill Smith or Jim Brown. We hope through the information we shall be

able to compile with these forms that we shall arrive at some facts as to what it has actually cost a physician to come to the place where he can enter medical practice, and so the cost to him in order that he may maintain himself in decent style and enable himself to render competent service.

Now we have established some checks against the general information that we shall compile in the hope that we will be able to make it dependable. I bespeak, Mr. Chairman, the cooperation of the Michigan State Medical Society and of the secretaries of the County Societies in Michigan in this effort to establish what we consider to be basic facts that must be in hand before any effort is made to remove any inequality or to correct any defects in our present system of medical service.

Another study which we are undertaking has to do with the income of physicians. We hope to get dependable information through statements that will be submitted by physicians themselves. No names will be revealed, no names need to be attached. There has been a tremendous amount of loose talk about this matter. There seem to be those who feel that every physician is independently wealthy, and there seems to be a tendency on the part of others to make every physician a pauper who is absolutely unable to care for his needs and the needs of his family. My own feeling is that the medical profession in the United States is reasonably prosperous, and I think it has been and will be just as prosperous as it deserves to be, and that its prosperity will depend upon the quality of the service that it renders.

We again bespeak your cooperation in securing this information about the income of physicians in order that we may establish as early as possible the facts that must be in hand before somebody, some self-constituted organization or group, goes out and publishes to the world misinformation under the guise of facts.

There are so many things that I might tell you about the work that goes on within these walls every day, and that I wish I could tell you, but of course time does not permit.

I hope all of you will visit every department in the building this afternoon, and I am especially anxious, Mr. Chairman, that all of you shall ask any questions that may occur to you, seek any information that you want to have. There is absolutely nothing to hide in the headquarters

of the American Medical Association. We should like to have you offer any suggestions that you believe may by any possibility be helpful to us because, as I told you last night, the nearly 500 employees that work in this building every day—and they really work—work in the hope and with the desire that what they do shall be done in the interest of medicine, and if there is anything you see that you think we are doing wrong, let us know about it. If there is any criticism you have to make of the operations of the American Medical Association, I can assure you that it will receive careful and sympathetic consideration.

Before I sit down, I want to say just one more thing. I am frequently asked, and asked in a way that indicates that the questioner does not believe the American Medical Association is doing anything for the individual physician, "What are you doing, or what do you have for the practicing physician?" I could answer that question from now until tomorrow morning and not get through answering it, but I should like to call your attention to the fact that everything the American Medical Association does is intended to be for the benefit of the practicing physician, and through him for the benefit of the public.

We are making, for instance, through our publications, a permanent record of the scientific literature of the world, some of it in abstract form, and some of it in more complete form. That alone would justify the existence of the American Medical Association and justify all the money that it spends, and it endeavors to spend every dollar that it can spend to good advantage.

You may be interested in knowing, Mr. Chairman, that the business transacted in this building approximates two million dollars. We try to spend every dollar of that that we can spend with assurance that it will be well spent for the promotion of the art and science of medicine. We have accumulated some surplus and there is some criticism about that, but I think you will understand when I tell you a few simple facts that that surplus is absolutely necessary to the continuance of the work of the organization.

I came here a little over six years ago, and I remember that in our library over there there were three young women. If you go into the library today you will find twenty-five hard-worked young women among its personnel. Our laboratory had one chemist and an assistant. We have

in our laboratory today three chemists, and three very competent chemists. The circulation of the Journal at that time was approximately 80,000. Today it is 90,000. The entire circulation is more nearly 100,000. At that time we had no Hygeia. We had our Quarterly Cumulative Index. The Quarterly Cumulative Index which is in the interest of every physician on earth—I am taking in a lot of territory but I know what I am saying—is today a tremendous publication gotten out at a net loss to the Association of thousands of dollars every year. We believe the expense is justified because we believe it is one of the most splendid contributions that can be made to scientific medicine, and for the further reason that we don't believe anybody but the American Medical Association can render that service.

So I might go on and give you some idea of how the Association has grown and why it is necessary for us to have a good working capital and a reserve. This building in which we stand was doubled in size a little more than three years ago. I remember Dr. Simmons said to me, "Now, West, we are fixed for all time to come," the same thing he had said on each of the four occasions when it was necessary to increase the size of our building, and today we are about to break out of the walls. We have got to look for money for further expansion. No matter what we do, no matter what we undertake in any department here it leads to something else that has to be done that nobody could foresee.

The time is coming, and it isn't at all distant, when we are going to have to have a bigger building and a better building, and in so far as I am personally concerned I hope it will be a building of such nature that whoever looks at it will appreciate it as a monument, as a memorial, to American medicine, and that it will be of the kind that every individual physician in the United States can take great pride in, and in which the work being done and the work that is to be done by the American Medical Association can be carried on and done better than it is being done at the present time.

Mr. Chairman, I am not going to impose on you any more. There are lots of things I would like to say to you that would give you a keener appreciation of the tremendous amount of work that the Association undertakes to do. We don't claim to be perfect; we make mistakes. We make very serious mistakes but we are doing the best we can, and we ask for

your criticism and for your cooperation in making it better.

We are going to serve on this floor in a little while, Mr. Chairman, the best repast that it is possible for us to put up here which will consist of nothing more than cold sandwiches and coffee, and maybe a pickle or two, and a glass of milk perhaps for some of you, and a piece of pie. We hope you will all come out and partake of that pabulum, and that it will hang to your ribs long enough to enable you to make a very careful inspection of this building this afternoon.

You will be asked to go in groups, and we will try to have a conductor for each individual group. We would like for you to see everything from the top of the house to the bottom of the house, and then the other way around. We don't want this to be your last visit to the American Medical Association headquarters. We want you to come whenever you want to come. If there is anything here that you think you can use to advantage, write and let us know about it. Every department in this building has a regular service bureau. I answer hundreds of individual inquiries every year myself, as does every other department head in the building. I want to say in closing, Mr. Chairman, that we feel honored in having the Council and the Secretaries of the Michigan State Medical Society here. We appreciate more than we can tell you your visit, and we hope it will be repeated many times. Thank you. (Applause)

President Hirschman: I can't find words, personally, to express my own appreciation of the visit that I have had here at headquarters. I think those of you who have sat through from start to finish can't help but be touched and impressed by the type of service which is being rendered you and to those members of the County and State Societies that you represent and I represent the consciousness and the fine quality of spirit behind every department head, and the wonderful spirit of cooperation between these heads and their employees.

I should like at this time to entertain a vote of thanks from the Michigan State Society members and its constituent society members to every man and every woman in the employ of the American Medical Association from the general manager down, and through Dr. West, that general manager, to the individuals in order that they may feel a little bit of that spirit of appreciation which I am sure is stirring within every one of us.

Dr. W. C. Ellet (Benton Harbor, Mich.): I make a motion that we thank the American Medical Association staff for the wonderful entertainment they have given us and for the viewpoint that they have given us on the way the organization is run.

... The motion was regularly seconded ...

President Hirschman: I take pleasure in putting such a vote.

... The motion was passed by a rising vote ...

President Hirschman: I take great pleasure in conveying that vote of thanks to you and through you, Mr. Secretary-Manager, to all the members of the organization.

Dr. Warnshuis: Every annual conference we have had has been devoted to our own problems within our own State, but this year this program has been arranged for you and I believe all of those who have listened to it will agree it has been one of the best meetings we have had as an annual conference.

However, before adjournment, is there any Secretary who has anything particularly referring to Michigan that he wants discussed or brought up, or questions asked?

President Hirschman: Is there anything else to be brought up before adjournment? If not, a motion to adjourn is in order. Hearing the motion from all quarters, I will declare the meeting adjourned.

... The meeting adjourned at twelve forty-five o'clock ...

ATTENDANCE AT CONFERENCE OF SECRETARIES OF COMPONENT COUNTY SOCIETIES OF THE MICHIGAN STATE MEDICAL SOCIETY

Chicago, Illinois, January 17, 1929

Dr. Florence Ames, Monroe, Monroe County Medical Society.

Dr. H. M. Best, Lapeer, Lapeer County Medical Society.

Dr. Carleton Dean, Eaton Rapids, Eaton County Medical Society.

Dr. W. C. Ellet, Benton Harbor, Berrien County Medical Society.

Dr. C. R. Elwood, Menominee, Menominee County Medical Society.

Dr. E. J. Evans, Ontonagon, Ontonagon County Medical Society.

Dr. Ralph B. Fast, Kalamazoo, Kalamazoo Academy of Medicine.

Dr. Russell L. Finch, Marquette, Marquette-Alger County Medical Society.

Dr. L. Fernald Foster, Bay City, Bay County Medical Society.

Dr. L. J. Hirschman, Detroit, President, Michigan State Medical Society.

Dr. Harry B. Knapp, Battle Creek, Calhoun County Medical Society.

Dr. Theron S. Langford, Ann Arbor, Washtenaw County Medical Society.

Dr. R. G. B. Marsh, Tecumseh, Lenawee County Medical Society.

Dr. John J. McCann, Ionia, Ionia-Montcalm County Medical Society.

Dr. C. A. Neafie, Pontiac, Oakland County Medical Society.

Dr. W. B. Newton, Alpena, Alpena County Medical Society.

Dr. Philip A. Riley, Jackson, Jackson County Medical Society.

Dr. E. F. Sladek, Traverse City, Grand Traverse-Leelanau County Medical Society.

Dr. George F. Swanson, Newberry, Luce County Medical Society.

Dr. C. E. Toshach, Saginaw, Saginaw County Medical Society.

Dr. Martin Tweedie, Sandusky, Sanilac County Medical Society.

Dr. T. P. Wickliffe, Lake Linden, Houghton County Medical Society.

BLOOD CHEMISTRY DETERMINES DEGREE OF DRUG ACTION

The effect of a dose of medicine depends not merely on the chemical makeup of the medicine itself but on the chemical state of the blood in our bodies when we take it. This is indicated by the experiments of Dr. William Salant, of the University of Georgia Medical School, performed at the Cold Spring Harbor Biological Station on Long Island.

The blood of all warm-blooded animals is normally slightly alkaline. When Dr. Salant injected doses of the drug ergotamin into experimental animals whose blood alkalinity had been artificially reduced, a marked depression in their blood pressure resulted. It was possible to restore the pressure to normal or even to increase it beyond that point, simply by controlling the degree of alkalinity of the blood.

The effects of a drug depend not only on the alkalinity of the blood but also on the particular balance of certain elements. Dr. Salant has found that concentrations of calcium and potassium in the blood are of essential significance in this respect. If the blood is lacking in calcium, adren-

alin, a powerful stimulant and energy-releasing secretion, can not produce results. Even a considerable reduction in the calcium content inhibits the action of adrenalin, unless the potassium present is correspondingly reduced.

If much potassium is present, the poisonous effects of nicotin are greatly increased; and in the presence of an excess of potassium the usually stimulating adrenalin reverses its behavior and becomes a depressant.

The toxicity of mercury is greatly increased by reducing the calcium concentration of the blood. But if the calcium content is increased the resistance to this poison, and also to arsenic, is correspondingly increased. This point may eventually become one of importance in medical practice, because both mercury and arsenic, though poisonous, are widely used in medicine, especially in the treatment of syphilis. The diet of the patient, in so far as it affects the potassium and calcium content of his body fluids, becomes a matter of concern in the light of Dr. Salant's researches. It is recognized that the average American diet is very low in calcium.—Science Service.

MINUTES OF THE MID-WINTER SESSION

Of The

COUNCIL OF THE MICHIGAN STATE MEDICAL SOCIETY

JANUARY 16, 1929

1. Pursuant to the official notice given to the members, the Council of the Michigan State Medical Society met at the headquarters of the American Medical Association in Chicago, Illinois on January 16, 1929.

The session was called to order at 10:00 a. m. with the Chairman, R. C. Stone presiding.

Present: R. C. Stone, C. E. Boys, Geo. L. Le Fevre, T. H. Heavenrich, B. H. Van Leuven, J. D. Bruce, R. Burke, H. Cook, B. F. Green, B. C. Corbus, P. R. Urmston, J. H. Powers, F. C. Warnshuis, L. J. Hirschman.

2. On motion of Heavenrich-Green the minutes of the Executive Committee were approved.

3. The Secretary presented the following as his Annual Report:

To The Council, Michigan State Medical Society.

Gentlemen:

TRANSMISSION

I have the honor to present to you, and through you to our constituent membership this Annual Report of your Secretary for the Society year of 1928, closing December 27, 1928.

FINANCIAL

Appended hereto is our bonded Auditor's report of their examination and audit of the Society's financial condition. In addition I append an itemization of expenditures debited to the several funds and accounts of the Society. Finally there is submitted a tentative budget to govern our finances for 1929.

While our funds may be appraised as representing a safe reserve they are by no means sufficient to insure independence from possible emergencies.

I recommend a transference of a reasonable amount to our Endowment Foundation.

I also further recommend that an Honorarium of \$25.00 per day be appropriated, in addition to their actual expenses, to our members participating in

the programs of our Post Graduate Conferences.

MEMBERSHIPS

Our membership last year was 3,242. At the close of 1928 our membership is 3,457. A gain of 215 members affiliated with the following County Societies:

County	1927	1928	Loss	Gain	Deaths
Alpena	18	16	2	—	1
Antrim, Charlevoix, Emmet	12	15	—	3	1
Barry	14	12	2	—	1
Bay	65	61	4	—	2
Berrien	39	41	—	2	—
Branch	14	13	1	—	—
Calhoun	107	109	—	2	—
Cass	7	8	—	1	—
Chippewa-Mackinac	16	16	—	—	—
Clinton	16	18	—	2	—
Delta	22	22	—	—	1
Dickinson-Iron	23	15	8	—	1
Eaton	19	22	—	3	—
Genesee	103	132	—	29	1
Gogebic	25	23	2	—	—
Grand Traverse	23	24	1	—	1
Gratiot-Isabella-Clare	30	31	—	1	2
Hillsdale	22	22	—	—	—
Houghton	40	42	—	2	2
Huron	8	9	—	1	—
Ingham	81	92	—	11	1
Ionia-Montcalm	37	38	—	1	—
Jackson	74	66	8	—	2
Kalamazoo-Van Buren	113	118	—	5	1
Kent	208	207	1	—	5
Lapeer	19	20	—	1	1
Lenawee	34	34	—	—	1
Livingston	—	14	—	14	—
Luce	9	10	—	1	—
Macomb	33	33	—	—	—
Manistee	11	10	1	—	—
Marquette-Alger	33	38	—	5	—
Mason	9	11	—	2	—
Mecosta	20	21	—	1	—
Midland	7	7	—	—	—
Menominee	11	11	—	—	—
Monroe	28	33	—	5	—
Muskegon	60	60	—	—	—
Oceana	8	8	—	—	—
Newaygo	11	10	1	—	1
Oakland	80	107	—	27	—
O. M. C. O. R. O.	9	8	1	—	—
Ontonagon	5	5	—	—	—
Ottawa	28	30	—	2	—
Saginaw	67	65	2	—	—
Sanilac	10	12	—	2	—
Schoolcraft	5	6	—	2	—
Shiawassee	30	31	—	1	1
St. Clair	48	50	—	2	—
St. Joseph	21	17	4	—	—
Tri	17	18	—	1	1
Tuscola	21	24	—	3	1
Washtenaw	125	120	5	—	1
Wayne	1,343	1,472	—	129	10
Total	3,242	3,457	46	261	39
		3,242		46	
Gain		215		215	

DEATHS

The following deaths are those that have been reported:

Name	County	City
Clarence M. Williams	Alpena	Alpena
Harry E. Shaver	Northern Michigan	Boyne City

M. J. Cross	Barry	Delton
Walter E. Loud	Bay	Essexville
Mary Williams	Bay	Bay City
Charles L. Girard	Delta	Spalding
Michael F. Dockery	Dickinson-Iron	Iron Mountain
Charles W. Goff	Genesee	Montrose
Flemming Carrow	G. Traverse-Leelanau	Traverse City
John N. Day, Jr.	Gratiot-Isabella-Clare	Alma
C. M. Denny	Gratiot-Isabella-Clare	Middleton
Otto M. Kohlhaas	Houghton	Calumet
W. A. Von Zellen	Houghton	L'Anse
W. H. Witter	Ingham	E. Lansing
A. E. Bulson	Jackson	Jackson
R. A. MacGregor	Jackson	Jackson
Russell J. Collier	Kalamazoo	Kalamazoo
Eugene Boise	Kent	Grand Rapids
Robert H. De Coux	Kent	Grand Rapids
Uilke De Vries	Kent	Grand Rapids
Alexander G. Graybill	Kent	Caledonia
Frederick J. Larned	Kent	Grand Rapids
G. W. Jones	Lapeer	Imlay City
Herbert R. Conklin	Lenawee	Tecumseh
C. A. Mateer	Newaygo	Fremont
Reynolds C. Mahany	Shiawassee	Owosso
Emmet S. Neihardt	Tri	South Boardman
W. C. Garvin	Tuscola	Millington
John T. Woods	Washtenaw	Chelsea
Clifford J. Dees	Wayne	Detroit
E. L. Emmons	Wayne	Detroit
Wendell T. Garretson	Wayne	Detroit
Harrison D. Jenks	Wayne	Detroit
Frank R. Loomis	Wayne	Detroit
Geo. P. McNaughton	Wayne	Detroit
M. V. Meddaugh	Wayne	Detroit
Angus P. Sutherland	Wayne	Detroit
E. C. Van Syckle	Wayne	Detroit
George M. Waldeck	Wayne	Detroit

Once again do we pause to pay tribute to those who have passed into the impenetrable darkness of the great unknown. When all too frequently these messages reach our desk we invariably wonder as to the "why-for" of their going. Servants all in our corp of administers to mankind. They gave of self in unstinted measure to enhance all life. We revere their memory and enroll their names in our permanent archives.

*"To die is landing on some distant shore
Where billows never break or tempests roar"*

GARTH

THE JOURNAL

I desire to utilize this opportunity to record my appreciation for the excellent manner in which our Editor has discharged his arduous task. It has been an ever pleasing duty to join him in his activities.

I submit the following summarization of business details:

Total Number of Pages	860
Total Advertising Pages	434
Advertising Receipts	\$ 8,474.13
Subscription Receipts	8,458.36
	\$16,932.49
Total Cost of Publication	15,103.24
	\$ 1,829.25
Net Journal Profit	3,412
Total Monthly Circulation	

Our Journal now has the largest circulation in its history.

POST-GRADUATE CONFERENCES

During the year twenty-one Post-Graduate Conferences were conducted in Districts and before County Societies. These Conferences have demonstrated their

merit and maintain a prominent place in our Society activity. They call for a tremendous amount of work and correspondence for the perfecting of details. The effort expended is compensated by the appreciation recorded by our members. It is anticipated that the coming year will witness the establishment of definite courses in some of our larger hospitals. Plans are well under way and details are being rapidly solved.

ILLEGAL PRACTITIONERS

During the year we have filed with the Attorney General and the State Constabulary substantiated complaints against violators of our Medical law. Arrests and conviction have been secured.

We impart anew that when County Societies learn of violators of these laws in their county they should call them to the attention of their County Prosecutor. If the County Prosecutor fails to take action and issue a warrant, then report the facts to this office. Upon receipt of such information your State Secretary will secure action through the Attorney General and the State Constabulary. If illegal practitioners exist in any county it is because of lack of action and interest on the part of the County Society.

CRIPPLED CHILDREN BUREAU

During the year contact has been established with the Crippled Children Bureau. Your Secretary arranged for the Conference held with the Council in September. Dr. Corbus appeared at the Bureau's Conference in Lansing and imparted the profession's position. Doctors J. B. Jackson and A. D. La Ferte have been appointed as the Society's ex-officio members on the Commission. Your Secretary has been selected as a member of the Commission's Legislative Commission. It may well be assured that these contacts will eradicate the differences that have existed and conserve the profession's interests.

LEGISLATIVE

Our Legislative program was clearly announced in the Council's Annual Report and by the Legislative Commission. The principles adopted are being diligently observed. It is impossible to impart the vast volume of work that devolves upon this office by reason of this legislative activity. Nevertheless it may be stated that our legislative interests are being carefully supervised with meticulous alertness to detail. At the conclusion of the present session of the Legislature a comprehensive report will be submitted.

OFFICE ROUTINE

Our Society contacts have in the last year doubled our office work. Beyond the routine correspondence pertaining to dues, mailing of membership certificates, notices of District Conferences and Committee meetings, we daily send out an average of fifteen letters to members and lay inquirers upon subjects identified with Society work and medical practice. This fact is cited not as a complaint but rather as a comment to indicate that more and more this office is being recognized as a central source for obtaining dependable medical information. We desire to encourage such an attitude and solicit increased utilization of our central office for informative facts and assistance.

ANNUAL MEETING

It devolves upon the Council to designate the time for the holding of our annual session in Jackson.

EXECUTIVE COMMITTEES

The Executive Committee has met each month. The progress of our activities and the problems that arise from week to week are thus carefully considered. The minutes of these meetings are published each month in The Journal.

COMMENT

Our Policy has been to report the progress of our Society activity in The Journal. The Annual Report of the Council to the House of Delegates was all inclusive and comprehensive. It would be repetition to include the subjects that were thus covered in this report. However, certain subjects demand further action and consideration. The attention of the Council is directed to them in this Comment.

1. A most valuable and thorough study of Hospital Administration was made and an exhaustive report was submitted by the Special Committee on Hospital Survey. That report contained certain recommendations. They were approved by the House of Delegates. The value of that report and the labors of the Committee will be lost if some action is not taken to apply the recommendations. Your Secretary requests instructions, therefore, as to how the recommendations may best be brought to the attention of the University Hospital and the Community Hospitals of the State so that institution of the Committees' recommendations may be achieved.

2. Important recommendations were made by the Special Committee on Nursing Service. The report and recommendations

were approved. The question of nurse training, education and service is a vital question of wide and intense public interest. As a Profession and a Society we have an important responsibility reposed in us which we dare not ignore. We cannot shirk our duty to our members or to the public. We become culpable when we permit hospital administrators and the Nursing Profession to institute policies in which we have no voice or guiding direction. Your Secretary, therefore, requests instructions as to how best to record the discharge of that obligation and responsibility.

3. The question of medical service in sparsely populated and rural communities continues to hold the attention and discussion of lay groups. It is an economic problem of considerable concern. Four years ago your Secretary made and reported upon a survey of the state that revealed sources of available medical services to these rural areas. To determine the present condition and to make comparison as to changes brought about over a period of five years, your Secretary requests that he be given authority to institute a second survey during 1929 and report his findings to the Council for submission at our next Annual Meeting.

4. Our Endowment Foundation was created for the purpose of soliciting a principal fund, that is to remain intact in perpetuity and the earnings from which are to be utilized in providing opportunities for post graduate education for our members. At our last annual meeting instructions were given to speedily accomplish the full subscription of this Endowment Foundation Fund. Your Secretary has tentatively formulated such a plan and in consideration certain sources from which funds may be solicited and secured. However, there are certain factors in connection therewith that call for the compilation of facts and tendering to presumptive subscribers supporting arguments and reasons that will convince them of the wisdom of their subscriptions. These facts can be obtained by correspondence but their presentation, in an impressive way to prospective contributors cannot be satisfactorily accomplished in any other way than by personal interviews. Consequently, your Secretary requests authority to arrange for such interviews.

In connection with this request it will not be amiss to direct the Council's attention anew to the importance of this feature of Society work and to point out the

increasing frequency with which influential lay publications comment upon this feature of our economical program and stress the point of medical men keeping abreast of medical progress so that the public may benefit therefrom. When we, as doctors, palpably so fail, then we may confidently expect to witness the institution of state medicine by national, state and county authorities. It is of tremendous importance that we circumvent such an eventuality.

CONCLUSION

In so far as it was possible and the necessary office supervision permitted your Secretary has attended a majority of our District Conferences and Joint Committee Meetings, all of the Executive Committee and Legislative Commission sessions. In addition a goodly number of County Society meetings were attended. The arranging for our Annual Meeting called for several visits to the place of meeting, and conferences with state officials at Lansing consumed much time. During several months I was away from my office by reason of society work for from nine to fourteen days each month. These time consuming engagements are a great tax and make serious inroads in personal affairs. Nevertheless, they have been met and my regret is that it was impossible to accept all the invitations that were received.

In concluding this report I desire to record my full appreciation for the confidence that is reposed in me. I have sought to serve—how well remains for the Council and our members to appraise.

Respectfully submitted,

F. C. WARNSHUIS,

Secretary.

SUMMARY OF EXPENSES

Account	Budget	Total	Over	Balance
Secretary	\$ 5,000.00	\$ 5,000.00		
Annual Meeting	1,000.00	909.83		\$ 90.17
Council Expense	1,000.00	1,117.48	\$ 117.48	
Delegates	500.00	417.65		82.35
Journal	15,750.00	15,103.24		646.76
Legislative Commission	2,000.00	265.79		1,734.21
Postage	300.00	425.50	126.50	
Post-Graduate Conference	3,500.00	3,213.94		286.06
Stenographers	2,500.00	2,755.00	255.00	
Office Rental and Phone	1,200.00	1,200.00		
Society Expense	1,050.00	6,229.10	5,179.10	
Hospital History	\$ 500.00			
Contingent Fund	550.00			
	\$1,050.00			
		\$33,800.00	\$36,638.53	\$5,678.08
			33,800.00	2,839.55
			\$ 2,838.53	\$2,838.53

ANNUAL MEETING EXPENSES

June—				
Milo Art Studio		\$ 8.00		\$ 8.00
September—				
A. P. Johnson Co.		13.77		
International Film Co.		80.00		
D. C. Beaver		15.00		
Milo Art Studio		155.75		
Frank Ruslander		175.00		
Floor Boys		25.00		
Hotel—Book-Cadillac		10.50		
Mileage		15.00		
Cartage—Express—Hotel				
Telegram—Booths—Registration Girls, etc.		168.00		\$ 658.02
October—				
Book-Cadillac Hotel		87.56		
Book-Cadillac Hotel		35.79		
Eastman Teaching Film		45.58		
Evans-Sherratt Co.		214.52		
Golden & Boter		1.00		
H. J. Prentiss		82.00		
Geo. F. Suker		38.61		
St. Louis Button Co.		81.57		
A. P. Johnson Co.		159.99		
C. Hoffman		25.48		
				\$ 772.10
November—				
Book-Cadillac		274.20		
McKinney, A. R.		27.42		
Morris, Robert T.		58.00		
				\$ 359.62
				\$1,797.74
December—				
Master Reporting Co.		719.59		\$ 719.59
				\$2,517.33
Total				
Credits:				
From Rental of Booths		1,607.50		
Net Expense				\$ 909.83

EXPENSES—1928

Month	Editor	Editor's Expense	Office Rental and Phone	Postage and Printing	Reprint Expense	Secretary	Stenographer
January			\$ 100.00	\$ 30.00	\$ 249.07	\$ 416.00	\$ 235.00
February	\$ 208.33		100.00	40.00	46.90	416.00	235.00
March	208.00	\$ 86.27	100.00	50.00	99.14	416.00	275.00
April	208.00	74.00	100.00	100.00	80.95	416.00	235.00
May	208.00	62.00	100.00	30.00		416.00	235.00
June	208.00	62.00	100.00	30.00	178.92	416.00	200.00
July	208.00	84.63	100.00	30.00	133.43	416.00	160.00
August	208.00	62.00	100.00	15.00	417.32	415.00	200.00
September	208.00	65.00	100.00	30.00		400.00	200.00
October	208.00	62.00	100.00		141.17	416.00	200.00
November	208.00	64.40	100.00	46.50	148.03	416.00	240.00
December	211.30	67.00	100.00	25.00	149.93	441.00	340.00
Total	\$2,291.63	\$689.30	\$1,200.00	\$426.50	\$1,644.86	\$5,000.00	\$2,755.00

COUNCIL EXPENSES—1928

January—

Hotel—Detroit	\$ 13.85
R. R. Detroit—Dr. Corbus, Rogers, F. C. Warnshuis	26.10
Dinner	6.75
Waiter	5.00
Taxi	1.25
Return Ticket and Sleeper	9.00
Dinner	4.00
Photograph for Journal	3.00
Incidentals—Tips—Telegrams, etc.	10.00
B. R. Corbus	26.18
Book-Cadillac	32.50

\$ 137.63

February—

Burke, R. A.	50.00
VanLeuven, B. H.	30.62

\$ 80.62

March—

Corbus, B. R.	47.00
Rogers, J. R.	13.50
Urmston, P. R.	17.75

\$ 78.25

April—

Mileage	15.00
Taxi	1.40
Hotel	12.00
Meals	9.00
Incidentals	5.00
Corbus, B. R.	23.00

\$ 65.40

May—

Ex-Committee Dinner	6.90
Telegram	1.80

\$ 8.70

August—

Northwood Hotel	44.00
Heavenrich, T.	4.50
Charters, J. H.	35.18

\$ 83.68

September—

Dinners	6.00
Powers, J. H.	16.00
Corbus, B. R.	47.50

\$ 69.50

November—

Paul R. Urmston	23.00
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\$ 23.00

December—

Otto Ricker	46.28
James D. Bruce	175.00
Burt F. Green	45.00
R. A. Burke	31.22
Henry Cook	19.50
B. R. Corbus	70.05
T. Heavenrich	18.00
R. C. Stone	106.70
P. R. Urmston	19.45
B. H. Van Leuven	39.50

\$ 570.70

Total \$1,117.48

DELEGATES EXPENSES—1928

January—

Carl F. Moll for 1927	\$ 59.35
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June—

C. S. Gorsline	\$ 98.66
A. W. Hornbogen	75.08

\$ 173.74

July—

J. D. Brook	91.94
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\$ 91.94

August—

Carl F. Moll	92.62
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\$ 92.62

\$ 417.65

JOURNAL EXPENSES—1928

January—

Mailing	\$ 15.00
Cartage	1.00
Taylor Letter Shop	2.52
Printing—Stock—Cuts	1,057.41

\$1,075.93

February—

Mailing	20.00
Taylor Letter Shop	1.52
Printing and Stock	799.50

\$ 821.02

March—

Mailing	20.00
Taylor Letter Shop	5.35
Printing, Stock, Cuts and Envelopes	924.21

\$ 949.56

April—

Mailing	25.00
Taylor Letter Shop	3.65
Printing, Stock, Cuts	854.65
A. P. Johnson Co.—Cuts	69.66

\$ 952.96

May—

Mailing	20.00
Taylor Letter Shop	13.85
Printing and Stock	972.21
A. P. Johnson Co.—Cuts	45.94

\$1,052.00

June—

Mailing	30.00
Taylor Letter Shop	1.50
Printing, Stock, Cuts	1,226.22

\$1,257.72

July—

Mailing	30.00
Printing, Stock, Cuts	847.03
Taylor Letter Shop	8.00

\$ 885.03

August—

Mailing	25.00
Taylor Letter Shop	3.25
Printing, Stock, Cuts	779.55

\$ 807.80

September—

Mailing	25.00
Taylor Husted	2.07
Printing, Stock, Cuts	854.89

\$ 881.96

October—

Mailing	25.00
Taylor Husted	2.56
Printing, Stock, Cuts	1,014.25

\$1,041.81

November—

Mailing	35.00
Taylor Husted	3.88
Printing, Stock and Supplements	1,277.57

\$1,316.45

December—

Mailing	20.00
Printing, Stock, Cuts	1,141.88
Taylor-Husted	3.08

\$ 1,164.96

Editor—Expense	689.30
Editor—Salary	2,291.63

\$ 3,980.93

Total \$15,188.13

Credits—

February Cuts	13.68
April Cuts	23.08
June Cuts	48.13

\$ 84.89

Net Total \$15,103.24

LEGISLATIVE COMMISSION—EXPENSE—1928

April—	
Olds Hotel—Luncheon Expense.....	\$ 13.00
Mileage	15.00
	\$ 28.00
May—	
Legislative Commission—Dinner.....	14.00
Expense—Lansing	10.00
J. B. Jackson.....	7.50
J. B. Jackson.....	10.24
	\$ 41.74
June—	
A. P. Johnson Co.—Printing.....	29.06
John Sundwall.....	22.25
	\$ 51.31
August—	
Guy L. Kiefer.....	14.55
John Sundwall.....	28.83
	\$ 43.38
November—	
C. F. McClintic.....	40.26
	\$ 40.26
December—	
James D. Bruce.....	15.00
J. B. Jackson.....	7.50
John Sundwall.....	4.50
F. C. Warnshuis.....	34.10
	\$ 61.10
Total	\$ 265.79

POST GRADUATE CONFERENCE EXPENSE—1928

January—	
Wm. N. Braley.....	\$ 10.86
	\$ 10.86
February—	
J. B. Jackson.....	20.09
	\$ 20.09
March—	
Detroit Conference.....	598.00
	\$ 598.00
May—	
Gratiot-Isabella-Clare Meeting Expense	15.00
Hotel and Meals—Corbus, Campbell,	
Eggleston	9.00
Mileage and Garage	13.00
Long Distance Call.....	1.90
Eastman Kodak Co.....	15.73
Slemons, C. C.....	3.90
A. P. Johnson Co.....	7.74
Mamera Shop—Films.....	386.48
St. Louis Button Co.....	37.81
Book-Cadillac Hotel.....	252.13
W. H. Ross.....	112.20
Frank N. Ruslander.....	50.00
Alumni Association.....	108.00
G. Van Amber Brown.....	46.26
	\$1,058.65
June—	
G. Van Amber Brown.....	33.43
T. D. Gordon.....	15.60
A. P. Johnson Co.—Printing.....	307.42
St. Joseph County Conference—Mileage	15.36
Hotel	8.00
Meals	7.00
Louis M. Warfield.....	34.60
	\$ 421.41
July—	
Ann Arbor Meeting.....	15.00
Charlotte County Meeting.....	12.40
A. P. Johnson Co.....	10.25
Kent County Society.....	147.05
13th District Conference—Gaylord, 532	
Miles @ 6 Cents.....	31.92
Hotel	10.00
	\$ 226.62
August—	
Eastman Kodak Co.....	15.43
	\$ 15.43

September—

W. H. Barnum.....	15.00
B. R. Corbus.....	25.00

\$ 40.00

October—

Blodgett Hospital.....	
Luncheons	48.00
Hotel Rowe.....	8.10
Postage	50.00
Camera Shop.....	34.70

\$ 140.80

November—

R. R. Smith.....	10.00
Frank Smithies.....	31.63
St. Mary's Hospital.....	21.00
Taxi—Dr. Harris, Smithies.....	1.75
Hotel, Flint—Harris, Smithies—Lunch	6.75
Breakfast	1.25
R. R. Tickets—Pollock and Smithies.....	33.00
Taxi and Incidentals—Flint.....	2.00
Mileage—Flint and Return.....	21.40
A. P. Johnson Co.....	67.05
Butterworth Hospital.....	44.25
Camera Shop.....	60.00
Carl D. Camp.....	9.58
Joseph A. Capps.....	18.25
B. C. Corbus.....	25.00
Eastman Teaching Film.....	15.72
E. L. Eggleston.....	20.71
J. P. Greenhill.....	18.47
A. D. La Ferte.....	9.36
Edward G. Martin.....	7.70
Harry E. Mock.....	17.96
M. A. Mortensen.....	6.55
Reuben Peterson.....	5.00
L. J. Pollock.....	13.50

\$ 467.89

December—

J. M. Whalen.....	58.00
W. J. Wilson.....	6.50
Henry Cook.....	52.75
J. P. Greenhill.....	32.76
A. P. Johnson Co.....	4.00
Phillip H. Kreuscher.....	22.60
A. D. La Ferte.....	11.98
Millard Smith.....	12.60
Grover C. Penberthy.....	13.00

\$ 214.19

Total \$3,213.94

SOCIETY EXPENSE—1928

January—	
Copyright	\$ 1.00
C. Hoffman—Christmas.....	25.00
Miscellaneous Expense.....	1.00
Barlow Bros.—Binding.....	18.00
H. W. TenBroek & Son—Insurance.....	55.00
Tisch-Hine Co.....	6.50
Western Union.....	3.98
A. P. Johnson Co.....	100.30
	\$ 210.78
February—	
Long Distance Calls.....	2.77
C. B. Burr.....	138.92
Central Press Clipping Service.....	6.00
Remington Rand Service.....	2.80
A. P. Johnson Co.....	49.39
John P. Rogers—Honorarium.....	100.00
	\$ 299.88
March—	
Copyright	1.00
Long Distance Calls.....	1.30
Central Press Clipping Service.....	3.00
Remington Rand Service.....	65.00
Golden & Boter.....	1.52
Tisch Hine Co.....	4.75
A. P. Johnson Co.....	96.40
Mrs. C. B. Crane.....	13.75
Western Union.....	1.56
	\$ 188.28
April—	
Copyright	1.00
Long Distance Calls.....	4.35
Central Press Clipping Service.....	3.00
Science Service.....	24.00
Tisch-Hine	2.65
Taylor's	94.25
Western Union.....	2.58
A. P. Johnson Co.....	18.80
	\$ 150.63

May—

Copyright	1.00
Long Distance Calls	12.35
Central Press Clipping Service	3.00
Ernst & Ernst—Auditing	147.50
A. P. Johnson Co.	124.71
Western Union	3.90
S. C. Moore	25.20
J. M. Whalen	20.20
T. S. Langford	2.75
J. T. Redwine	25.12
Philip Riley	6.00
M. S. Chambers	4.25
W. F. Reed	20.28
C. J. Addison	12.26
Ray Dean	7.00
T. P. Wickliffe	61.94
H. B. Knapp	16.40
L. F. Foster	5.70
J. J. McCann	14.40
R. B. Fast	9.00
Florence Ames	1.71

\$ 534.67

May—

R. G. B. Marsh	3.60
W. C. Reineking	65.50
Louis Le Fevre	18.86
W. E. Ward	5.68

\$ 94.64

June—

Central Press Clipping Service	3.00
Master Reporting Co.	132.31
Tisch-Hine Co.	4.10
Long Distance Calls	10.15
Western Union	2.91
Register of Copyrights	1.00
C. B. Burr	159.57

\$ 313.04

July—

Register of Copyright	2.00
Long Distance Calls	4.85
Central Press Clipping Service	2.30
Western Union	2.02
Wayne County Directory	2,763.00
Women's Auxiliary	196.04

\$2,970.21

August—

Register of Copyright	2.00
W. H. Marshall	25.00
Western Union	3.56
Long Distance Calls	5.70

\$ 36.26

September—

Register of Copyright	2.00
Long Distance Calls	7.95
H. E. Randall	150.00
Tisch-Hine	.90
Western Union	4.30

\$ 165.15

October—

Register of Copyrights	2.00
Long Distance Calls	9.45
Expense Joint Committee on Public Health Education	25.00
Brown Floral Co.	10.00
G. R. Trust Co.	5.00
A. D. La Ferte	20.47
Taylor's	3.25
Taylor and Husted	3.55
Western Union	.95
A. P. Johnson Co.	11.71

\$ 91.38

November—

Register of Copyrights	2.00
Tisch-Hine Co.	6.58
A. P. Johnson Co.	169.46
Long Distance Calls	5.75
Western Union	6.72
Royal Typewriter Co.	107.50

\$ 298.01

December—

Register of Copyrights	2.00
A. P. Johnson Co.	20.00
Tisch-Hine Co.	5.50
Long Distance Calls	2.50
Western Union	2.19
Taylor's—Ink	2.50
A. P. Johnson Co.	56.50
Traverse City and Return	40.00
Mary Sakocius—Christmas	10.00

Caroline Hoffman—Christmas	25.00
Joint Committee	1,000.00
	\$1,166.19

Total	\$6,519.12
Credits	290.02

Net Expense	\$6,229.10
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Credits—

May 30—Fee collected, Detroit	\$ 90.00
Detroit College Alumni Association	200.00
	\$ 290.00
Dec. Adj.	.02
Total	\$ 290.02

MEDICAL DEFENSE—1928

Cash Account

	Debits	Credits
Jan. 1 Balance		\$ 794.99
Jan. 31 Dues		1,430.00
Feb. 29 Douglas-Barbour-Brown	\$ 126.25	
Douglas-Barbour-Brown, ½ Retainer Fee	500.00	
F. B. Tibbals, ½ Retainer Fee	500.00	
Expense Items	9.50	
Feb. 29 Dues		1,300.00
Mar. 5 Interest on Bonds Purchased	13.75	
Mar. 31 Interest on Bonds	13.77	
Mar. 31 Douglas-Barbour-Brown	343.40	
Mar. 5 Profit on Sale of Bonds		240.00
Mar. 31 Dues		1,244.00
Mar. 31 Interest on Bonds		277.50
Mar. 31 Difference on Purchase of Bonds	90.00	
Mar. 31 Bonds Purchased	1,930.00	
Apr. 30 Dues		1,297.00
Apr. 30 Interest on Bonds		25.00
Apr. 30 Return of Dues	8.00	
May 30 Dues		393.00
June 30 F. B. Tibbals, 2nd ½ Retainer Fee	500.00	
June 30 Douglas-Barbour-Brown	900.00	
June 30 Dues		439.00
July 30 Douglas-Barbour-Brown, 2nd ½ Retainer Fee	500.00	
July 30 Dues		143.50
July 30 Interest on Bonds		62.50
Aug. 30 Douglas-Barbour-Brown	100.00	
Aug. 30 Dues		32.00
Aug. 30 Interest on Bonds		122.50
Sept. 30 Dues		77.00
Oct. 30 Dues		219.50
Oct. 30 Interest on Bonds		150.00
Oct. 30 Profit on Sale of Bonds		24.39
Nov. 30 Return of Dues	2.00	
Nov. 30 Dues		42.00
Dec. 26 Return of Dues	4.00	
Dec. 26 Dues		167.50
	\$5,540.67	\$ 8,481.38
		5,540.67
Cash Balance—Jan. 1, 1929		\$ 2,940.71
Bonds on Hand		12,841.80
		\$15,782.51

MICHIGAN STATE MEDICAL SOCIETY
JOINT COMMITTEE—ACCOUNT

Dec. 26, 1928—

Receipts

Michigan State Nurses Association	\$ 100.00
Michigan Tuberculosis Association	300.00
University of Michigan	500.00
Michigan State Dental Society	500.00
Michigan Hospital Association	100.00
Michigan State Medical Society	1,000.00
	\$2,500.00

Disbursements

July—	
Dorothy Corley	\$ 33.33
E. H. Corley	50.00
H. Riecker	25.00
	\$ 108.33

August—

Dorothy Corley	33.33
E. H. Corley	50.00
H. Riecker	25.00
	\$ 108.33

September—

Dorothy Corley.....	33.33
E. H. Corley.....	50.00
H. Riecker.....	25.00
A. Van Horn.....	50.00
H. Riecker.....	50.00

\$ 208.33

October—

H. Riecker.....	75.00
Dorothy Corley.....	33.33
E. H. Corley.....	50.00
A. C. Curtis.....	50.00
J. D. Bruce.....	41.00

\$ 249.33

November—

Dorothy Corley.....	33.33
E. H. Corley.....	50.00
H. Riecker.....	75.00
A. C. Curtis.....	50.00
J. D. Bruce.....	22.10
R. A. Morter.....	13.37

\$ 243.80

December—

Dorothy Corley.....	33.33
E. H. Corley.....	50.00
Herman Rieker.....	75.00
A. C. Curtis.....	50.00
J. D. Bruce—Printing.....	152.70

\$ 361.03

\$1,279.15 \$2,500.00
1,279.15

Balance on Hand—Jan. 1, 1929..... \$1,220.85

MICHIGAN STATE MEDICAL SOCIETY
PROPOSED BUDGET—1929

Society

Estimated Income—3,450 members @ \$10.00.....	\$34,500.00
Interest on Bonds.....	1,200.00
	\$35,700.00

Expenditures—

Medical Legal Committee—3,450 @ \$2.00.....	\$ 6,900.00
Journal Subscriptions—3,450 @ \$2.50.....	8,625.00
Rent, Light, Telephone.....	1,200.00
Annual Meeting.....	1,000.00
Post Graduate Conferences.....	3,500.00
Legislative Committee.....	1,500.00
Committee Expenses.....	500.00
Printing and Postage.....	500.00
Council Expense.....	1,000.00
Delegates to American Medical Association.....	1,500.00
Stenographic Service.....	2,750.00
Secretary's Salary.....	
Contingent Fund.....	6,725.00
	\$35,700.00

Journal Budget

Income—	
3,450 Subscriptions.....	\$ 8,625.00
Advertising Sales.....	8,000.00
	\$16,625.00

Expense—

Printing and Mailing.....	\$13,000.00
Wrappers.....	225.00
Editor's Salary and Stenographer.....	3,250.00
Reserve.....	150.00
	\$16,625.00

January 7, 1929.

To the Council of the Michigan State
Medical Society,
Gentlemen:

In accordance with your request, we have audited the books of account and record of the *Michigan State Medical Society* for the period from December 30, 1927 to December 26, 1928 and submit herewith our report.

Our examination consisted of a verification of the assets and liabilities of the Society on December 26, 1928, in addition to which we made a comprehensive test check of the recorded cash transactions, operating accounts, and other records for the period, as commented upon more fully throughout the text of this report. These tests

were, in our opinion, sufficient to indicate the general accuracy of the accounting records.

The assets and liabilities at December 26, 1928 are set forth in condensed form below in comparison with those on December 29, 1927:

ASSETS

	December 26, 1928	December 29, 1927	Increase Decrease*
Cash.....	\$ 852.63	\$ 104.38	\$ 748.25
Accounts Receivable.....	839.65	768.66	70.99
Securities Owned—At Cost.....	40,540.55	33,450.75	7,089.80
Unclipped Bond Coupons.....	225.00	320.00	95.00*
	\$42,457.83	\$34,643.79	\$7,814.04

LIABILITIES

	December 26, 1928	December 29, 1927	Increase Decrease*
Notes Payable.....	\$ 1,750.00		\$1,750.00
Bank Overdraft.....		28.03	28.03*
Advance Payments.....	814.50	269.82	544.68
Joint Committee.....	1,220.85		1,220.85
Reserve for Legal Defense.....	15,618.71	11,566.99	4,051.72
Net Worth—General.....	23,053.77	22,778.95	274.82
	\$42,457.83	\$34,643.79	\$7,814.04

Cash on deposit on December 26, 1928, was verified by direct correspondence with the depository, the balance so reported being reconciled to the balance carried on the Society's books. We traced the recorded cash receipts for the period under audit to bank deposits as shown by bank statements on hand in the Society's files and thoroughly tested disbursements made therefrom. Our test consisted of examination of cancelled bank checks, invoices and other data on file for three months of the period under audit, and no exceptions were noted.

Accounts Receivable were proved by trial balance of the open accounts on December 26, 1928. We did not correspond with the recorded debtors to further verify the accuracy of the book records, but we analyzed the open balances as to date of charge as shown in the summary below:

Date of Charge	Amount	Per Cent of Total
December, 1928.....	\$ 665.25	65%
November, 1928.....	45.50	4
October, 1928.....	21.50	2
September, 1928.....	23.75	2
August, 1928.....	17.50	2
July, 1928.....	17.50	2
April, May and June, 1928.....	21.25	2
January, February and March, 1928.....	24.25	2
Prior to January 1, 1928.....	203.15	19
Total.....	\$1,039.65	100%

Securities owned are stated at cost and were verified by inspection. A schedule of these securities is included elsewhere in this report.

As far as we could ascertain, full provision has been made for all known liabilities of the Society on December 26, 1928.

The liability to the Joint Committee arises through the handling of the funds of that Committee on the books of the Society as a matter of convenience to the Committee Treasurer, Dr. F. C. Warnshuis.

Office equipment purchased during the period has been charged to expense in accordance with the established policy of the Society.

Attention is directed to the fact that the fidelity bond given by Dr. John R. Rogers, Treasurer, in the amount of \$25,000.00 expired during the period under audit, and had not been renewed on December 26, 1928.

Included in this report is a comparative Statement of Income and Expense for the fiscal periods ended December 26, 1928, and December 29, 1927, as well as a Statement of Receipts and Disbursements of the Medico Legal Defense Fund for the fiscal period ended December 26, 1928. The increase of \$4,051.72 in this Reserve represents

the Net Gain for the period as set forth in an accompanying schedule.

We Hereby Certify that we have audited the books of account and record of the *Michigan State Medical Society*, for the period from December 30, 1927 to December 26, 1928, as herein outlined, and that, in our opinion, based upon the records examined and information obtained by us, the accompanying Statement of Assets and Liabilities sets forth correctly the financial condition of the Society at the date named and the relative operating statement is correct.

Very truly yours,

ENRST & ENRST,
Certified Public Accountants.

(SEAL)

STATEMENT OF ASSETS AND LIABILITIES

Michigan State Medical Society

At the close of business December 26, 1928

ASSETS	
CASH—	
Undeposited Receipts.....	\$ 10.00
On Deposit.....	842.63
	\$ 852.63
ACCOUNTS RECEIVABLE—	
Members' and Advertisers' Accounts.....	\$ 1,039.65
Less: Allowance for Doubtful.....	200.00
	\$ 839.65
SECURITIES OWNED—At Cost.....	40,540.55
UNCLIPPED BOND COUPONS.....	225.00
	\$42,457.83
LIABILITIES	
NOTES PAYABLE—	
To Banks.....	\$ 1,750.00
ACCOUNTS PAYABLE—	
Members' Prepayments.....	\$ 814.50
Joint Committee.....	1,220.85
	\$ 2,035.35
RESERVE—	
For Legal Defense.....	15,618.71
NET WORTH—	
Balance—December 30, 1928.....	\$22,778.95
Net Income for the Fiscal Period ended December 26, 1928.....	274.82
	\$23,053.77
	\$42,457.83

INCOME AND EXPENSE

Michigan State Medical Society

INCOME			
	For the Period Ended December 26, 1928	December 29, 1927	Increase Decrease*
Membership Dues.....	\$18,256.58	\$17,696.50	\$ 560.08
Advertising.....	8,474.13	8,447.48	26.65
Journal Subscriptions.....	8,458.36	8,206.42	251.94
Reprint Sales.....	1,611.50	3,114.50	1,503.00*
Interest on Investments.....	1,376.39	1,128.10	248.29
Profit on Sale of Securities.....	290.00	216.00	74.00
Reduction in Reserve for Doubtful Accounts.....	100.00		100.00
	\$38,566.96	\$38,809.00	\$ 242.04*
EXPENSE			
Secretary's Salary.....	\$ 5,000.00	\$ 4,000.00	\$1,000.00
Editor's Salary.....	2,291.63		2,291.63
Stenographers' Salaries.....	2,755.00	2,440.00	315.00
Journal Expense.....	12,811.61	10,751.41	2,060.20
Society Expense.....	6,229.10	4,945.50	1,283.60
Post Graduate Conference.....	3,213.94	2,145.45	1,068.49
Reprint Expense.....	1,644.86	3,003.60	1,358.74*
Office Rental and Expense.....	1,200.00	1,200.00	
Council Expense.....	1,117.48	730.67	386.81
Annual Meeting.....	909.83	603.56	306.27
Postage and Printing.....	426.50	378.00	48.50
Delegates to American Medical Association.....	417.65	286.20	131.45
Legislative Commission.....	265.79		265.79
Interest Paid on Note.....	8.75		8.75
Provision for Loss on Doubtful Accounts.....		300.00	300.00*
	\$38,292.14	\$30,784.39	\$7,507.75
Net Income.....	\$ 274.82	\$ 8,024.61	\$7,749.79*

INCOME AND EXPENSE—MEDICO LEGAL DEFENSE FUND

Michigan State Medical Society

For the Period from December 30, 1927 to December 26, 1928,
inclusive

INCOME	
Dues.....	\$6,626.50
Interest on Securities.....	563.57
Profit on Sale of Securities.....	244.80
	\$7,534.87
EXPENSE	
Legal Fees.....	\$3,479.15
Commission Paid on Purchase of Securities.....	4.00
	\$3,483.15
Net Gain.....	\$4,051.72

SUMMARY OF CASH RECEIPTS AND DISBURSEMENTS; MEDICO LEGAL DEFENSE FUND

Michigan State Medical Society

For the Period from December 30, 1927 to December 26, 1928,
inclusive

BALANCE—December 30, 1927.....	\$ 794.99
Jan. 31, Dues Received during January.....	\$1,430.00
Feb. 29, Dues Received during February.....	1,300.00
Mar. 5, Interest Received on Bonds.....	277.50
Mar. 5, National Electric Power Company Bonds Sold.....	2,910.00
Mar. 5, Profit on Sale of National Electric Power Company Bonds.....	240.00
Mar. 31, Dues Received during March.....	1,244.00
Apr. 6, Interest Received on Bonds.....	25.00
Apr. 30, Dues Received during April.....	1,297.00
May 31, Dues Received during May.....	393.00
June 30, Dues Received during June.....	439.00
July 13, Interest Received on Bonds.....	62.50
July 31, Dues Received during July.....	143.50
Aug. 31, Interest Received on Bonds.....	122.50
Aug. 31, Dues Received during August.....	32.00
Sept. 30, Dues Received during September.....	77.00
Oct. 31, General Motors Acceptance Corporation Bonds Sold.....	2,935.20
Oct. 31, Profit on sale of General Motors Acceptance Corporation Bonds Sold.....	4.80
Oct. 31, Interest Received on Bonds.....	169.59
Oct. 31, Dues Received during October.....	219.50
Nov. 30, Dues Received during November.....	42.00
Dec. 31, Dues Received during December.....	23.50
Dec. 31, Interest Received on Bonds.....	30.00
	\$13,417.59

DISBURSEMENTS

Feb. 3, Douglas, Barbour, Brown & Rogers.....	\$ 626.25
Feb. 3, F. B. Tibbals.....	509.50
Mar. 5, National Gas & Electric Company Bonds Purchased.....	3,000.00
Mar. 5, Accrued Interest on above Bonds.....	13.75
Mar. 5, New York Central Railroad Co. Bonds Purchased.....	1,930.00
Mar. 5, Accrued Interest on above Bonds.....	9.77
Mar. 5, Commission Paid on above Bond Purchase.....	4.00
Mar. 31, Douglas, Barbour, Brown & Rogers.....	343.40
Apr. 30, Dues Returned during April.....	8.00

June 8,	F. B. Tibbals.....	500.00		
June 29,	Douglas, Barbour, Brown & Rogers	900.00		
July 10,	Douglas, Barbour, Brown & Rogers	500.00		
Aug. 1,	Douglas, Barbour, Brown & Rogers	100.00		
Oct. 24,	Michigan Fuel & Light Co. Bonds Purchased	2,985.00		
Nov. 30,	Dues Returned dur- ing November.....	2.00		
Dec. 26,	Dues Returned dur- ing period Decem- ber 1, 1926, inclu- sive	4.00	11,435.67	1,981.92
BALANCE—December 26, 1928.....				\$2,776.91*

(Note *) The cash balance of the Society's regular account and the Medico Legal Defense Fund are carried together. In order to avoid sale of securities, monies belonging to the Defense Fund have been used to pay accounts of of the Society, this to be reimbursed from future receipts. Therefore, the balance on December 26, 1928 represents cash due from the general funds of the Society.

SECURITIES OWNED

Michigan State Medical Society

December 26, 1928

	In- terest	Matur- ity	Par Value	Cost
General Motors Acceptance Corporation	5%	1931	\$ 2,000.00	\$ 1,956.80
Hudson Valley Coke & Products Company.....	7	1930	2,000.00	2,000.00
Peoples Light & Power Company	5½	1941	2,000.00	1,940.00
Grand Rapids Affiliated Corporation	5	1955	7,000.00	7,000.00
National Gas & Electric Company	5½	1931	3,000.00	3,000.00
New York Central Railroad Company	4	1998	2,000.00	1,930.00
Michigan Fuel & Light Company	6	1950	3,000.00	2,985.00
United Light & Power Company	5½	1959	2,000.00	1,850.00
No. 50 Broadway Building Corporation	6	1946	2,000.00	2,000.00
Pennsylvania Railroad Company	5	1964	3,000.00	3,093.75
National Electric Power Company	5	1978	5,000.00	4,725.00
Community Power Light Company	5	1957	2,000.00	1,940.00
American Telephone & Telegraph Company	5	1960	2,000.00	2,120.00
Palmer Building Corporation	6	1935	2,000.00	2,000.00
Herald Square Building Corporation	6	1948	2,000.00	2,000.00
Total			\$41,000.00	\$40,540.55

SECRETARY'S SUPPLEMENTAL REPORT

To the Members of the Council:
Gentlemen:

There are certain features of our Society activity that merit special consideration. They deal not only with present activities but also have a bearing upon the future. To submit them I am tendering this supplemental report.

1. Infraction of Medical Practice Act: Violations of our medical practice laws exist quite generally throughout the state. Within the past week County Societies have reported some nine new instances. During the past year we have caused proceedings to be instituted in some fifteen cases and have secured data or entered in correspondence about twenty more. Our Society is not a police power of the state, yet members and County Societies are apparently deeply interested and desire the

State Society to assume the role and responsibility of causing proceedings to be instituted. The State Board of Registration refrains, for lack of funds, to be concerned.

To investigate complaints, compile information, supply supportive evidence, demands much time, correspondence, labor and follow-up.

If this feature of work is to be assumed then it must be supervised in a most thorough manner and be evidenced in every county.

It is for the Council to determine whether the implied desires of our members be acceded to and this new feature of society effort be undertaken.

2. Medical History: The Council is aware that a very efficient committee is compiling a Medical History of the State. The accompanying letter imparts that copy is about completed for the first volume. The financing of printing the volume, securing subscriptions, and supervising distribution will entail time and system to obviate financial deficit. Certain business details require careful attention.

It is incumbent for the Council to now determine the procedure and policy that will govern the issuance and publication of our history.

3. Legislation: The Legislative Commission is complying with the mandate of the House of Delegates by introducing the two approved bills and exerting influence to attain their enactment. The attached letter is explanatory.

Our Society and our members have other Legislative interests that require supervision. Bills have already been introduced and will be introduced that impinge upon and involve our medical interests and which our members expect the Society to supervise. True, we have a Legislative Committee upon which this responsibility rests. It is composed of busy practitioners. Reliance is being manifested upon your Secretary. Your Secretary ever seeks to serve in so far as he is able, yet your Secretary hesitates to assume the role of "Watch Dog" and accept the responsibility of such a role without definite instruction and authority. The Council will do well to define a policy and program.

These activities are, therefore, respectfully drawn to the attention of the Council.

F. C. WARNSHUIS,
Secretary.

4. The Secretary read the following Annual Report of the Editor:

EDITOR'S REPORT 1928

To the Council of the Michigan State Medical Society:

This is the first year that the editorship and position of business manager have been separated. The Secretary's report has given interesting statistics in regard to The Journal recording, among other things, an increase in the total number of pages, so that volume 27 for the year 1928 contains 860 pages of reading matter and is the largest volume in the history of the Society. It is likewise noted that the total advertising pages number 434 and that there has been a net profit of \$1,829.25. The Secretary also notes that The Journal has now the largest circulation in its history.

It is the policy of The Journal to encourage papers based upon personal observation and study and this includes of course clinical or case reports. It is interesting to note that from prehistoric times when clinical reports were used medicine has made substantial progress, and when clinical reports ceased medical progress was at a standstill. During the past year it has been our good fortune to refer to two epoch makers of medicine, namely William Harvey and John Hunter. Medical journalism was non-existent at the time both of these workers proclaimed their discoveries and it took Harvey more years than it took weeks for Roentgen's discovery of the X-ray to reach the medical world.

An endeavor has been made to affect the make-up of The Journal so as to display contributed articles to better advantage. The first thing to note is the prominent place given to the table of contents. The make-up of The Journal has also been rearranged to begin all contributed articles at the top of the page and to fill in what would otherwise be blank space at the end of the article with live matter consisting of abstracts of articles from various medical journals as well as by selections from the copy furnished by Science Service.

The contributions from the Michigan Board of Health will continue to be a feature of The Journal.

The editorial department deals with two classes of subject, in the first place comment on different topics which might be catalogued under the heading Medical Sociology particularly as it affects the profession of the state; secondly with medical and surgical subjects in a somewhat broad way rather than in technical detail which

is essentially the field of the specialist in various departments.

In assuming the position of editor it has been my aim to carry out the policy of the Michigan State Medical Society as manifested by the council and more immediately by the publication committee, the Chairman of which has been consulted by me very frequently. I wish to say here that I have found Dr. Bruce ever ready to advise in all matters referred to him and our conference in the interest of the Society has been frequent. Our relationships in this regard have been most satisfactory and happy to me as have also all my contacts with Dr. Warnshuis as business manager.

J. H. DEMPSTER.

5. The Secretary read the Annual Report of the Chairman of the Medico-Legal Committee:

TO THE COUNCIL MICHIGAN STATE MEDICAL SOCIETY

The past year has been a fortunate one, but 25 cases being reported, a smaller number than at any time since 1920.

We would like to feel that the spirit of Esprit-de-corps is becoming state-wide in our profession, so that the word of criticism which starts so many suits, is no longer spoken, and that most members have learned to avoid all negligence.

But we are not sufficiently optimistic to believe the millennium that near at hand, and are fearful that the coming year will show the normal number of threats and suits which has averaged slightly more than one per cent since our work began in 1910.

A total of over 500 cases has been reported to this Committee and a final adverse verdict has very seldom occurred in cases handled entirely by us. Our defense is stronger than that of any insurance company because we obtain more completely the support of the local profession and we aid greatly in the defense of cases handled by insurance companies.

No investment pays our member as well as that from the small sum which he annually puts in the Medico Legal Fund.

Respectfully submitted,
F. B. Tibbals,
William J. Stapleton, Jr.

6. The Secretary presented the following communications:

January 15, 1929.

Frederick C. Warnshuis, M. D., Secretary
Michigan State Medical Society,
Palmer House,
Chicago, Illinois.

Dear Friend Fred:

I arrived home safely but am compelled to remain in the house owing to the fact that I still have some temperature and pain around my ear.

I regret very much that it will be necessary for me to be absent from the meeting, this being the first Councilor meeting that I have missed. I was very much interested in the fact that you were going to have this meeting in Chicago and feel very keenly the fact that I am unable to be present. However, I hope you will have a very successful meeting.

In looking over the report for the past year, I am very favorably impressed with the workings of the Michigan State Medical Society. There are many points which I would be very much interested in the discussion of, especially am I interested in the hospital survey, nurses survey, and also the proposition which you make for making a further survey of the physicians in the rural communities. I hope these matters will be thoroughly discussed and plans be adopted whereby we may go forth in our efforts to clear up the same. I only hope for the State Society the best of success for the coming year, and this step which you have taken in co-operating with American Medical, I feel is going to be of greater benefit than we can at this time foresee.

Thanking you for your kindness, and hoping that you remember me to the other members, I remain,

Yours respectfully,
Otto L. Ricker, M. D.

January 9, 1929.

Dr. Louis J. Hirschman, President
State Medical Society,
Detroit, Michigan.

Dear Dr. Hirschman:

This letter is to continue the conversation which Dr. J. W. Toan recently had with you concerning clinics for doctors and proposed legislation.

As you will recall, the Medical Department of the Michigan Tuberculosis Association, last spring, sponsored five Regional Chest Clinics for Doctors in as many county sanatoria of the state. These clinics were attended by two hundred and thirty (230) doctors who were favorably impressed if we can judge from the letters and words of commendation. These clinics were put on in Michigan as a part of the nation-wide Early Diagnosis Campaign.

Now before making plans for repeating such a series of clinics, I am writing you, Dr. Hirschman, that we may be sure of the attitude of the State Medical Society concerning them. If your Society believes that it should, through its Post-Graduate Educational Program, assume this responsibility, we shall then gladly direct our activities along other lines. The Michigan Tuberculosis Association, through its Medical Department, wishes to work in the closest harmony with the State Medical Society at all times.

We shall also be very glad to learn the attitude of the State Medical Society on the proposed legislation for a sanatorium at Ann Arbor. Perhaps your Society would rather favor the comple-

tion of the Howell institution before considering the proposal for Ann Arbor. Then, too, the northern counties of this peninsula are sadly in need of a sanatorium and have not the wealth to build for themselves.

Be assured that the Michigan Tuberculosis Association desires to co-operate and be of any help possible in your educational or legislative programs.

Very truly yours,
E. R. Van der Slice, M. D.,
Medical Adviser.

January 12, 1929.

Dr. F. C. Warnshuis,
Michigan State Medical Society,
G. R. National Bank Building,
Grand Rapids, Michigan.

Dear Dr. Warnshuis:

Being at the close of one year and at the beginning of another in the task of publishing The Journal for the Michigan State Medical Society, we are pleased to say that this work has been both enjoyable and profitable during 1928.

We feel it is both necessary and businesslike to in some way settle the question of publishing your valued Journal for 1929, even though we have already made a start on the January issue.

As you well know, the price covering the mechanical operations on The Journal have from time to time been gone into thoroughly enough to know that at least that end of the job is down to a figure which can be considered just to both parties of the contract.

The A. P. Jonson Company would consider it both a favor and a pleasure to be permitted to carry on for 1929. Will you please advise if it is agreeable to you and the Michigan State Medical Society to consider the 1928 contract to be effective during the current year?

Very truly yours,
A. P. JOHNSON COMPANY,
M. J. Tietema,
Business Manager.

January 12, 1929.

Dr. F. C. Warnshuis,
Secretary-Editor,
Michigan State Medical Society,
1508 G. R. National Bank Building,
Grand Rapids, Michigan.

My dear Fred:

In answer to your letter of January 10, I am pleased to give you the following information.

The two bills that the Legislative Commission has been ordered to present to the legislature this year have been received today in final form from the Attorney General. I have in mind asking Senator Engel to introduce the bills in the Senate. I will do so if it meets with the Governor's approval.

With reference to the petitions that have been sent out and the reports received, you can give this information better than I can.

I am sorry to say that Charles Culver is Chairman of the Committee on Health in the House but he has assured Mr. William Farrand, Representative from Detroit, that he does not feel any antagonism particularly to our bills. The Senate committee is favorable. Dr. Upjohn is Chairman, Senator Skinner of Kent County is on the committee, as is Senator Engel.

I have had several letters objecting to the

amendment in the Medical Practice Act which requires a person, before he can become registered by reciprocity, to have lived in the state one year. Doctor Marshall of Flint has written and says that he would have to oppose the bill if we insist on carrying that amendment. Doctor Connor has written a very abusive letter to the Attorney General objecting to the amendment. Dr. C. D. Aaron of Detroit has written an objection to me. I have told these gentlemen that it is mandatory on the Legislative Commission to introduce the bills with an amendment to protect the resort doctors like Dr. Van Leuven against men who come in and take their summer practice away from them.

This morning I had a long conference with Assistant Attorney General Metcalf and we worked out the following proviso for our amendment, which I have since telephoned to Dr. Marshall and which he says will fix the matter up all right.

"Provided, That such applicant may, at the discretion of the board, be permitted to practice in this state from the time of notifying the board of his intention to apply for registration under the provisions hereof, until his application for registration shall have been acted upon by said board. The fee for registration from applicants of this class shall be fifty dollars, and for the endorsement of a certificate to another state, five dollars, *which shall be paid at the time of filing the notice of applicant's intention to apply for registration.*"

If it meets with the approval of the Council, I will be glad to have this amendment written in this way.

I do not know any news to write about the progress of our bills but if there is anything else that you would like information about, please let me know.

Very sincerely yours,
Guy L. Kiefer, M. D.,
Commissioner.

7. The Secretary presented a bill of \$3,000 from the Wayne County Medical Society, the same being statement rendered to the Wayne County Society for publication of the names of its members in the Detroit Telephone Directory, together with a communication from the Auditor of the Wayne County Medical Society.

On motion of Urmston-Corbus, and following an extended discussion, the Secretary was directed to return the bill to the Wayne County Medical Society and to notify them that it was not allowed for payment out of the funds of the State Medical Society.

8. The Secretary presented a communication from the O. M. C. O. R. O. County Society in which the eight members of these six county districts expressed a desire to surrender their charter and to obtain affiliations with other or adjacent County Societies. On motion of Powers-Greene, the communication was referred to the Councilor of that district, Dr. P. R. Urmston.

9. On motion of Cook-Boys, the question of educational instruction in Wayne County be referred to the Finance Committee.

10. On motion of Urmston-Powers, the problem of the increase of mental cases was cited and request made that some study and activity be manifested in this subject by the State Medical Society. This was referred to the Committee on County Societies for investigation and report.

11. At this junction the Council was honored by a visit of President-elect of the American Medical Association, Dr. M. L. Harris, who addressed the Council and welcomed them to the American Medical Association headquarters building.

12. As the Council convened the Secretary and General Manager of the American Medical Association, Dr. Olin West, was presented to the Council and in a very cordial manner Dr. West welcomed the Council to Chicago and to the headquarters of the American Medical Association.

13. At 12:45 p. m. the Council went into recess.

14. The Council re-convened at 2 p. m. with the same members in attendance as were present at the morning session.

15. The Publication Committee submitted the following report, which upon motion of Urmston-Boys, was adopted:

REPORT OF PUBLICATION COMMITTEE

The comment which our enlarged and splendidly edited Journal is receiving should be a matter of much pride to this body.

For many years The Journal of the Michigan State Medical Society has held its own with similar publications and the devotion which has marked our Secretary's services as Secretary-Editor should be long remembered and appreciated by this body. That the Council was well advised in accepting Dr. Warnshuis' suggestion for a division of duties has been amply proven by the greatly increased activities and effectiveness of both Secretary and Editor during the past year.

Your Committee believes it unnecessary to mention the worth while development in general editorial policy which the advent of Dr. Dempster has made possible. It does, however, wish to call attention to and to commend the effort to stimulate interest in educational and cultural lines outside the field of medicine. The introduction of apt quotations and allusions to lay literature should add zest to our reading, lighten the burden of the daily grind, and,

we hope, stimulate many into alluring by-paths of cultural development.

Your Committee is looking forward with much interest to the publication of our Medical History. There has been some discussion of the publication of the first volume in the near future. We think it in order at this time to suggest that the material for the second volume be more nearly completed before the publication of the first be finally decided upon.

A communication from the A. P. Johnson Company, signifying their satisfaction with the present arrangements for the publication of The Journal. In as much as this connection has been eminently satisfactory a continuance of the contract is recommended.

Van Leuven,
Green,
Bruce.

16. The Finance Committee made the following report, which upon motion of LeFevre-Boys, was adopted:

REPORT OF FINANCE COMMITTEE

To the Council:

Your Committee on Finances, after reviewing the Auditor's report and the itemization of expenditures submitted by the Secretary, recommends to the Council as follows:

1. That the report of the Auditor be accepted and approved.

2. That the Annual Report of the Treasurer revealing the reserve funds in his possession, complying as it does with the Auditor's financial statement, be accepted and approved.

3. That the budget submitted for 1929 in the Secretary's report be approved, and that the annual salary of the Secretary for the year 1929 be \$5,000.00.

4. Your Finance Committee recommends that the sum of Two Dollars (\$2.00) per member be allotted from the annual dues to the fund of the Medico Legal Defense Committee.

5. Your Finance Committee recommends that the sum of Ten Thousand Dollars (\$10,000.00) in bonds be transferred from the reserve fund of the Society to the Endowment Foundation.

6. Your Finance Committee recommends that the sum of Five Thousand Dollars (\$5,000.00) in bonds from the reserve fund of the Medico Legal Defense Committee be transferred to the Endowment Foundation.

7. Your Finance Committee recommends that the Secretary be authorized to undertake his outlined activities in securing con-

tributions to the Endowment Foundation and that the expenses entailed in this feature of activity be charged against the general expense account of the State Society, upon the approval by the Executive Committee of statements rendered for such expenses.

8. Your Finance Committee notes that The Journal revealed a profit of \$1,829.25 during the past year. In connection therewith it draws the attention of the Council and the Members to the fact that against this Journal expense account there have been no charges for the services rendered by the Secretary as Business Manager, nor for postage, telephone, telegraph or office expense that have been expended in publishing The Journal. This having been borne by the general expense account of the Society. This explanation is inserted merely as a matter of record and to circumvent any claim that The Journal is on a revenue producing basis.

The Council recognizes that it owes to Wayne County certain educational program assistance. The Council however, does not feel that such recognition should be disproportionate to similar assistance accorded to other counties.

In lieu of conducting Post-Graduate Conferences in Detroit the Council appropriates the sum of \$1,200 to be paid to the Treasuries of the Wayne County Society and to be expended by Wayne County for such educational purposes as the Council of Wayne County deems most advantageous for its members.

This appropriation must not be considered as a precedent for future appropriations.

LeFevre,
Cook,
Powers.

17. The Committee on County Societies made the following report, which on motion of LeFevre-Urmston was adopted:

COUNTY SOCIETIES

Your Committee feels it unnecessary to go into detail on County Society activities since they are sufficiently considered in the Secretary's report. Attention is called to the gratifying increase in new members—261 in the state as a whole—of which 132 are in the state outside of Wayne and Kent.

Your Committee feels that it is unwise to accept the Secretary's recommendation that an honorarium of \$25.00 be paid to members participating in Post-Graduate Conferences with this exception—that the

Secretary be authorized, with the approval of the Executive Committee, to pay any or all speakers who are sent to the upper peninsula an honorarium of \$50.00 a day, together with his or their expenses.

INFRACTIONS OF MEDICAL PRACTICE ACT

Your Committee feels that the Society must take upon itself the responsibility of giving every reasonable aid to the proper enforcing officers to prevent infractions of the Medical Practice Act. This not only for the protection of the public, but also for the protection of the interests of our members. The Secretary is therefore urged and authorized to give every aid, to take such independent steps, and to work with the County Secretaries to this end.

MEDICAL HISTORY

We recommend that the details of financing and publishing the proposed history be left to the Executive Committee with full authorization to proceed.

LEGISLATION

We recommend the same policy as in the above paragraph.

MICHIGAN TUBERCULOSIS ASSOCIATION

1. To Combine the Clinic activities of Michigan Tuberculosis Association with Post-Graduate Conferences.

We approve of the Regional Chest Clinics to be given in five County Sanatoria and believe this might continue to be carried on by the Tuberculosis Association.

We believe that the other clinics given throughout the state be given with and under the supervision of the Post-Graduate Department of the University of Michigan in conjunction with the Michigan State Medical Society.

2. Proposed legislation for Tuberculosis Sanitarium at Ann Arbor.

We are not in favor of the establishment

of an independent Tuberculosis Sanitarium at Ann Arbor.

We would, however, urge the establishment of a department for tuberculosis as a part of and under the supervision of the University of Michigan hospital. This department, which might be of approximately 100 beds, to be especially for the purpose of research and study and student training.

The committee endorses such laws as now exist, or such future action which may be necessary in the prevention of the propagation of mental deficients.

Corbus,
Boys,
Heavenrich.

18. Discussion of the program of the State Commissioner of Health on the subject of "Preventive Medicine" was informally held, and upon motion of Corbus-Powers, Dr. Bruce was requested to write a statement setting forth the obligation of the profession.

19. Upon motion of Corbus-Boys, F. C. Warnshuis was elected Secretary for the ensuing year.

20. Upon motion of Bruce-Van Leuven, J. H. Dempster was elected Editor for the ensuing year.

21. Upon motion of Powers-Heavenrich, J. R. Rogers was elected Treasurer for the ensuing year.

22. Upon motion of LeFevre-Cook, the Secretary was directed to secure an indemnity bond in the amount of \$25,000.00 on the Treasurer.

23. The time for holding the Annual Meeting was, upon motion of Powers-Urmston, referred to the Executive Committee and the President with power to act.

24. The Council adjourned at 4:15 p. m.

F. C. WARNSHUIS,
Secretary.

SEEK TO SIMPLIFY PRODUCTION OF INSULIN

A new and simpler way of making insulin, the great boon to diabetics, may result from studies now being made. Professor John J. Abel, who was the first to make pure crystalline insulin, reported to members of the American Association for the Advancement of Science at the annual meeting, that probably only a part of the complex insulin molecule is responsible for the action of the substance. In that case, it will probably not be necessary to build up the whole complex structure in order to get an active compound.

Professor Abel and Dr. H. Jensen of the Johns Hopkins School of Medicine are now studying the chemical composition and structure of insulin. Lack of insulin results in the disease known as

diabetes. Doctors Banting, Macleod, Collip and Best of the University of Toronto were able to prepare a pancreatic extract which contained insulin and was effective in treating diabetes. Professor Abel and associates later succeeded in synthesizing the crystalline insulin. Insulin is of protein nature.

"The outstanding characteristic of crystalline insulin in comparison with other proteins is its high sulphur content (3.1 to 3.2 per cent) and its instability toward alkali," said Professor Abel. Crystalline insulin has a very powerful action. The average daily dosage of insulin given to a patient suffering from diabetes would correspond to 1 mg., or about one-hundredth of a grain, of crystalline insulin.—Science Service.

MICHIGAN'S DEPARTMENT OF HEALTH

GUY L. KIEFER, M. D., Commissioner
LANSING, MICHIGAN

INFLUENZA

In order to get an accurate and clear picture of the influenza incidence in the state, and to provide data for further study in an effort to control the disease, letters were sent to all physicians and health officers calling for reports. To make sure that the situation is entirely clear, the letters are reprinted here:

December 17, 1928.

Dear Doctor:

In the Rules and Regulations of the Michigan Department of Health and in the Health Officers Manual it is designated that "Influenza" is to be a reportable disease, only during epidemics. The incidence of influenza in the state at the present time is such that it is deemed advisable to take epidemic precautions.

The first of these precautions involved, of course, is the accurate and complete report of all cases. This is the first and most fundamental requirement in the control of any contagious disease. Beginning at the receipt of this letter, will you please report to your local health officer, in the usual manner, the occurrence of all cases of influenza, until you are notified from this office that the reporting of cases is not longer necessary.

Thanking you for your co-operation, I remain

Very sincerely yours,

GUY L. KIEFER, M. D.,
Commissioner and Collaborating
Epidemiologist.

December 18, 1928.

To Health Officers of All Cities,
State of Michigan:

Because of the possibilities of a widespread epidemic of influenza in this state, you are requested to inform this office of the number of new cases of influenza occurring in your city each day, by telegraphic night letter, at state expense, giving total case reports for the day.

These daily telegraphic reports of the new cases of influenza should continue until further notice from this office.

These telegraphic reports will be recorded as the official reports from your city of the occurrence of influenza; they need not be confirmed by written reports.

Please see that all death certificates, where death was caused by pneumonia or other respiratory diseases, always state influenza as a factor, if present.

The reports of all other contagious diseases should be made in the usual way.

Very truly yours,

GUY L. KIEFER, M. D.

A RECENT STUDY OF DIPHTHERIA IMMUNIZATION

A recent study was made in Detroit to determine the reasons given by parents for not giving their children the benefits of toxin-antitoxin immunization. For this

purpose a detailed study was made of one hundred cases. The parents of these one hundred cases were visited and asked to state definitely why their children had not been immunized with toxin-antitoxin. A tabulation of the answers given by the parents is found below:

Fifty-one per cent of the cases were caused by the parents' own negligence, in "putting it off."

Twenty per cent of the parents claimed that they had never heard of toxin-antitoxin.

Eight per cent of the parents "did not believe that toxin-antitoxin would be effective in preventing diphtheria."

Three per cent of the parents "thought that toxin-antitoxin could be given after the child had become ill."

Four per cent of the cases were due to the fact that the parents or the child was "afraid of the needle."

Six per cent of the parents said that they did not think the immunization was necessary for their child, "because the child was too young."

All of these parents thought that they did the proper thing by their children in allowing them to remain susceptible to diphtheria. None of these parents expected that their children would contract the disease. All of these children did contract diphtheria which shows the futility of such reasoning.—D. M. G.

BACTERIOPHAGE

The work of preparing, distributing and studying bacteriophage has progressed rapidly during the past few months. The total distribution from the Department laboratories of bacteriophage for December was more than 4,700 c.c. This may be compared with 50 c.c. distributed in December 1927, and 200 c.c. in June 1928. Much of the increase has been caused by increased interest and application in Detroit. Bacteriophage is now being used in the out-patient department of the Receiving Hospital, by many Detroit physicians, and by a considerable number of physicians outside of the metropolitan area. Distribution is free in return for clinical data. Inasmuch as it has been impossible to secure sufficient clinical material in Michigan the department is furnishing bacteriophage for a number of large clinics in several states.

Investigation of typhoid bacteriophage as a substitute for the typhoid vaccine has been going on for some time, and a report of the work was given at the annual meeting of the Society of American bacteriol-

ogists at Richmond, December 28. This report will be published soon.

PRENATAL WORK IN SAGINAW COUNTY

The annual report of prenatal work under the Saginaw County Health Unit contains facts that will be of interest to physicians. We quote from the report:

"Upon entrance into the county, all physicians were interviewed and acquainted with the plan of work and asked for a list of patients on whom they wished to have calls made. About seventy-five (75) physicians were seen in this connection.

"The total number of prenatal patients visited were 319, with 620 calls before delivery and 368 after delivery. On 10 patients, for various reasons, no history was obtained, (patient not co-operating, residing outside of county, or could not speak English). There were 78 mothers on whom postnatal visits only were made, owing to their not having been referred previous to delivery, or the impossibility of making the call before delivery. Of the 309 patients on whom histories were obtained 252 have been delivered at this time.

Other visits are as follows:

No. of visits to physicians	308
nurses	66
hospitals	20
infants	490
preschool children	168

"Age Groups—A study of the age groups of the women shows that 32 were under 20 years of age; 156 between 20 and 30 years of age; 109 between 30 and 40 years, and 12 over 40 years. The youngest age at which patients received instruction is 15 and the oldest 44 years.

"Duration of Pregnancy—The duration of pregnancy at the time of the nurse's first visit is as follows:

1st month	0
2nd month	3
3rd month	17
4th month	11
5th month	19
6th month	41
7th month	58
8th month	57
9th month	103

"The above table speaks for itself. It is hoped that as the work becomes better known a larger number will be seen early in pregnancy.

There were 76 primipara and 233 multipara.

Of the 256 patients who have been delivered, 100 saw their physician regularly; 76 fairly regularly; 75, not regularly and 5 not at all. Of the 53 undelivered (one of whom has moved away—two were mistaken pregnancies) 31 saw their physicians regularly; 10, fairly regularly; 11 not

regularly and one has not yet seen a physician. Three patients were delivered by midwives.

"Symptoms Reported to Physicians—Symptoms which were reported to physicians by the nurse are as follows:

Persistent vomiting	21
Repeated headaches	42
Dizziness	43
Spots before eyes	41
Puffiness of face and hands	43
Constipation	82
Scanty urine	5
Abdominal pain	94
Vaginal discharge	13
Muscular twitching	37
No abnormal symptoms	93

"Abnormal Conditions Reported by Doctors—Pre-eclamptic toxemia, albuminuria or Bright's Disease were present in 12 cases. Of these, five (5) patients were delivered of stillbirths (one pair of twins making 6 stillbirths) four (4) were delivered of infants in fair condition and four (4) of normal infants. One patient who had albuminuria also had influenza followed by pneumonia and pleurisy and later empyema. This patient was in the hospital for seven months and was finally discharged. Her baby was in good condition when last seen by nurse. Two patients have tuberculosis and are at present at the tuberculosis hospital. One was found to have positive sputum when she reported at the prenatal clinic in March and was referred to the tuberculosis nurse who arranged for hospitalization. She remained there until August when she was removed to St. Mary's hospital where she was delivered of a normal infant. The other patient had influenza shortly after delivery and developed tuberculosis, was referred to the tuberculosis nurse who got her into the tuberculosis hospital. Both babies were doing well when last heard from.

"One patient has carcinoma of the cervix (four physicians had a share in looking after her—the first gave prenatal examination) had radium treatment but little hope was held for her recovery. She was delivered last February and is still living, doing her own work, but has not been co-operative about returning to the doctor for radium treatments. The doctor reports she was in last week and is in bad condition.

"Another patient had smallpox during pregnancy (7th month) but was delivered of a normal infant at full term. One patient who has syphilis received treatment but found positive after first course of treatment was delivered of a baby apparently in good condition but found to have a positive Wassermann.

"Delivery—Delivery occurred as follows:

Home	220
Hospital	32
Normal	228
Instrument	22
Operative (Caesarean)	2
Not reported	6
Live births	243 (2 pr. twins)
Stillbirths	12 (1 pr. twins)
Undelivered	50
Moved away or no report	7

"One patient is at present at the hospital having had pleurisy and phlebitis. She was delivered at the hospital, returned to her home on the 11th day and again returned about the third week in a very serious condition. According to last report is doing well.

"Infant Deaths—Infant deaths occurred as follows:

Under one day	4
Under one month	3
Under one year	1

"Of those living only a few hours, one had icterus neonatorum, two were premature, another was a monstrosity delivered prematurely. Causes of death under one month were pyloric obstruction, pneumonia and prematurity. One death occurred at nine (9) months—one of a pair of twins artificially fed—baby was teething. (No doubt gastro-intestinal trouble)

"Infant Feeding—The babies were fed as follows:

Breast fed entirely	188
Bottle fed	10
Comb. breast and bottle	33
No. report (incl. stillbirths or babies who died early or patients moved away)	28
Undelivered	50

PHYSICIAN NEEDED

The village of Mendon is without the service of a physician, since the death of Dr. Charles E. Barniger, which occurred on November 24, 1928. Any physician in the state wishing to locate in Mendon should communicate with Mr. L. E. Woodworth, village clerk.—D. M. G.

DENTAL SURVEY IN LIVINGSTON COUNTY

Through the efforts of the county nurse, Miss Julia D. Clock, and financed by the local Red Cross Chapter, Dr. E. A. Collcott of Howell was secured to assist in making a complete dental survey of the school children of the county. Howell was the only exception, and in this city the local dentists made the survey.

The results of this check-up of mouth conditions showed that 90 per cent of both the city and rural school children had cavities in teeth, 72 per cent had cavities in permanent teeth, 37 per cent needed teeth extracted, and only 26 per cent had any dental fillings.

HEALTH CERTIFICATES FOR CHAUFFEURS

A reminder has been sent to physicians that health certificates issued to chauffeurs in accordance with the provisions of Act 309, Public Acts of 1927, are good for two years. Certificates bearing a 1928 date cover the calendar years 1928 and 1929. They are issued by the Michigan Department of Health in duplicate so that a copy can accompany the application to the Secretary of State for a chauffeur's license. When a chauffeur does not have a health certificate in his possession, a duplicate can be obtained from the Michigan Department of Health.

DIET CARDS

Under date of January 8, the six diet cards prepared by the Michigan Department of Health to supplement instructions given by physicians were sent to all doctors in the state. The cards outline diets for prospective mothers, for nursing mothers, and for children from birth to twelve years of age.

The cards were designed to accompany advice on diets given by the attending physician in each case. They are not sent directly to mothers or to nurses. A supply sufficient for distribution to patients will be sent upon request.

NEWS NOTES

Dr. Ida M. Alexander of the Bureau of Child Hygiene and Public Health Nursing has begun her series of Women's Classes in Allegan county. It has been decided to give these classes in a series of three lectures, instead of six as formerly. In this way a greater number of counties can be served.

Miss Emily Lyon, nurse with the Bureau of Child Hygiene and Public Health Nursing, has completed her prenatal nursing program in Sanilac county, where she was located from September 15th to January 1st, inclusive. Miss Lyon will begin work in Ottawa county, Monday, January 7th. The doctors in the county have already been interviewed, and have expressed their desire to have this service for the education of the mothers. Miss Lyon works only with prospective mothers, and mothers of young infants.

Miss Sylvia Krejci will complete her prenatal nursing program in Ionia county February 1. Miss Krejci has been located in Ionia since the latter part of September. It has not yet been decided where Miss Krejci will go from Ionia.

Miss Harriet Szymczak, nurse with the Bureau of Child Hygiene and Public Health Nursing, will complete her prenatal nursing program in Montcalm County February 1. Future plans for Miss Szymczak have not yet been decided upon.

Final report of the summer program of highway water supply protection carried on by the Bureau of Engineering will be completed in time for presentation at the Eighth Annual Public Health Conference in Lansing on January 9, 10 and 11. Colonel E. D. Rich will discuss all of the measures employed by the Department for the safeguarding of summer visitors.

The Annual Conference of Sewage Disposal Plant Operators will be held in Lansing on January 24 and 25, 1929. Floyd G. Brown, Superintendent of the Sewage Disposal Plant at Marion, Ohio, has been invited to be the principal out-of-state speaker.

County Normal Training Classes in Presque Isle County, Montmorency, Alpena, and Iosco Counties will be visited by staff members of the Department during January and February. This is the regular County Normal Lecture schedule which applies to thirty-seven schools in both upper and lower peninsulas.

The two full-time lecturers from the Bureau of Education visited eleven counties during December—Allegan, Clare, Genesee, Hillsdale, Ingham, Kent, Newaygo, Oakland, Ottawa, St. Joseph and Wayne. With the exception of a week's campaign in the high schools of Flint, and a three days' schedule in Clare county, nearly all of the lecturers were in answer to single requests. Speakers are sent from the Department only upon invitation of local groups. Topics discussed included the various aspects of personal hygiene, child hygiene, and community health.

PREVALENCE OF DISEASE

December Report

Cases Reported

	November	December	December	Av. 5
	1928	1928	1927	yrs.
Pneumonia	476	1,007	469	509
Tuberculosis	527	415	426	425
Typhoid Fever	39	18	49	60
Diphtheria	396	420	460	587
Whooping Cough	1,182	914	444	460
Scarlet Fever	977	1,083	1,020	1,041
Measles	133	311	1,212	1,085
Smallpox	70	105	144	156
Meningitis	27	35	12	11
Poliomyelitis	8	3	16	8

Syphilis	1,171	1,102	925	1,075
Gonorrhea	575	661	654	762
Chancroid	8	4	4	8
Influenza		18,093		

CONDENSED MONTHLY REPORT

Michigan Department of Health Laboratories

	+	-	+—	Total
Lansing Laboratory—				
Throat Swabs for Diphtheria				1703
Diagnosis	44	437		
Release	163	472		
Carrier	40	516		
Virulence Tests	17	14		
Throat Swabs for Hemolytic Streptococci				794
Diagnosis	110	128		
Carrier	44	512		
Throat Swabs for Vincents	39	442		481
Syphilis				6681
Kahn	1031	5589	59	
Wassermann				
Darkfield		2		
Examination for Gonococci	125	1025		1151
B. Tuberculosis				447
Sputum	74	332		
Animal Inoculations	5	36		
Feces	4	25		
Typhoid				85
Blood Cultures		23		
Widals	4	27		
Urine		2		
B. Abortus		28		28
Dysentery		25		25
Intestinal Parasites				21
Transudates and Exudates				217
Blood Examinations (not classified)				130
Urine Examinations (not classified)				320
Water and Sewage Examinations				353
Milk Examinations				66
Toxicological Examinations				
Autogenous Vaccines				
Supplementary Examinations				163
Unclassified Examinations				743
Total for the Month				13408
Cumulative Total (fiscal year)				87926
Increase over this month last year				809
Houghton Laboratory—				
Examinations made — Total for the Month				1386
Cumulative Total (fiscal year)				8938
Decrease over this month last year				187
Grand Rapids Laboratory—				
Examinations made — Total for the Month				6273
Cumulative Total (fiscal year)				38187
Decrease over this month last year				331
Typhoid Vaccine Distributed, c. c.				11326
Diphtheria Antitoxin Distributed, units				5521
Diphtheria Toxin Antitoxin Distributed, c. c.				33400
Silver Nitrate Ampules Distributed				1804
Scarlet Fever Antitoxin Distributed, units				122
Scarlet Fever Toxin Dick Test Distributed, c. c.				1650
Scarlet Fever Toxin Immunization Distributed, c. c.				1783
Smallpox Vaccine Distributed, points				7015

THE JOURNAL

OF THE

Michigan State Medical Society

PUBLICATION COMMITTEE

J. D. BRUCE, M. D., Chairman. Ann Arbor
B. F. GREEN, M. D. Hillsdale
B. H. VAN LEUVEN, M. D. Petoskey

Editor

J. H. DEMPSTER, M. D.,
641 David Whitney Bldg., Detroit, Michigan.

Business Manager

FREDERICK C. WARNSHUIS, M. D., D. Sc.
Grand Rapids, Michigan.

All communications relative to exchanges, books for review, manuscripts, should be addressed to J. H. Dempster, M. D., 641 David Whitney Bldg., Detroit, Michigan.

Contributors are responsible for all statements, conclusions and methods in presenting their subjects. Their views may or may not be in agreement with those of the editor. The aim, however, is to allow authors as great latitude as the general policy of The Journal and the demands on its space may permit. The right to reduce in length or to reject any article is reserved. Articles are accepted for publication on condition that they are contributed solely to this Journal.

All communications regarding advertising and subscriptions should be addressed to F. C. Warnshuis, M. D., Suite 1508 Grand Rapids National Bank Bldg., Grand Rapids, Michigan.

FEBRUARY, 1929

"I hold every man a debtor to his profession, from the which as men of course do seek to receive countenance and profit, so ought they of duty to endeavor themselves, by way of amends, to be a help and ornament thereunto."

—Francis Bacon.

EDITORIAL

IMMUNIZATION AGAINST DIPHTHERIA

The matter of immunizing for diphtheria remains to a large extent with the medical profession of the state. Are we as physicians doing our duty to the best of our ability in this regard? It is rather distasteful to the members of the medical profession to invite patients to their office and then to make a charge. Immunization is something towards which, in the absence of an epidemic, parents are apt to manifest more or less indifference. In Detroit, since the matter of immunizing against diphtheria has been undertaken by the medical profession, 2,600 complete immunizations have been reported. When it is understood that a large number of these are children in institutions the number of voluntary immunizations does not look so great. It seems therefore if diphtheria is to be eliminated entirely, the medical profession will

have to be aggressive in urging toxin-anti-toxin wherever it is indicated. At least an endeavor should be made to immunize infants between the ages of six to eighteen months.

As this is written the influenza epidemic shows evidence of abatement. If this change for the better is permanent let us again concern ourselves with the matter of preventive medicine so far as it concerns the elimination of diphtheria.

STATE HOSPITAL DEFICIENCY

The lay press has pretty generally announced the plan of Governor Green for raising revenue to provide increased accommodation for wards of the various state institutions. The governor is to be commended for his farsightedness in sensing a situation that may not have been any too apparent to many members of the medical profession of the state. The condition that has existed for some time is deplorable.

The tenor of the press has been one of disfavor to raising the amount by taxation of incomes. Of course this method of taxation has been twice voted down by the people of Michigan. Yet the state hospital situation remains unrelieved, and must be eventually met. Doubtless an extra impost on existing taxation property would be the better way to go about procuring the required funds for the extension of hospital facilities.

SECRETARY'S ANNUAL REPORT 1928

Attention is called to the annual report of the Secretary of the Michigan State Society for the past year. It is comprehensive and very carefully compiled. It will be noted that there has been an increase in the membership of the State Medical Society from 3,242 to 3,457 during the year. A little more than half of the increase was from Wayne County. Thirty-nine members have died during the year.

The report gives interesting statistics in regard to this Journal. Among other things it is interesting to note a net profit of \$1,829.25 after defraying the entire cost of the publication.

The post-graduate conference is as much in demand as ever, twenty-one conferences having been conducted during the past year in various districts and before county societies.

Among other important features discussed in the report are the crusade against illegal practitioners, co-operation

of the State Medical Society with the crippled children bureau, and the legislative program. In addition is an itemized account of receipts and disbursements as well as a statement of the financial condition of the Society.

GENERAL MEDICINE*

Dr. M. L. Harris, president-elect of the American Medical Association, analyses the situation that today confronts a great many physicians in general medicine. Among the various factors enumerated are, health examinations of school children which weaned many mothers away from the family physician; health officers and boards of health overstepping their legitimate field; the Infant Society, where the generosity of the physician was abused by the well-to-do mothers. The workingmen's compensation laws which would seem to insure physicians getting their fees has had the opposite effect giving rise as they do to insurance companies which take all or most of the industrial accidents out of the care of the unattached physician.

The periodic health examination on the part of some life insurance companies with the purpose of increasing longevity of their policy holders has tended to diminish the routine work of the general practitioner. He refers to a disposition on the part of many misguided physicians throughout the country to sell their services for the purpose of making examinations for commercial institutions organized for profit, whereby the physician lends himself to exploitation. Then there is an over-production of specialists and a disposition on the part of the laity to seek the specialist for ailments which the general practitioner is able to handle quite satisfactorily. The tendency towards early specialization in medicine and surgery is attributed to the trend of medical teaching whereby the student becomes imbued with the idea that since it is impossible to become familiar with the whole domain of medicine, he will at once limit his efforts to one particular field. Again, according to Dr. Harris, too much time is spent in various laboratories until the student comes to look upon disease as something located in a test tube rather than something affecting a living person. The doctor thinks it is a mistake that students should spend too much time in so-called research work.

He emphasized the great need for more general practitioners who possess a thor-

ough acquaintance with general medicine as well as an intimacy with the special requirements and habits of their patients.

The medical profession has been criticized for exorbitant charges. There is no doubt that in some instances fees have been exorbitant; but it is equally true that the great majority of the profession are inclined towards moderation in their fees. It is hardly necessary to enlarge on the physician's legitimate needs in the way of reading and study to keep abreast of the times. Everyone knows what that means and the expense attached thereto.

There has been an exodus to the city of young men and young women from the country until in many cases farms have been abandoned. Of course this explains the scarcity of physicians in the country. In fact, added to this we have the custom on the part of the farmer or villager to seek the specialist in the nearest city when occasion arises, rather than his own local doctor, if there is yet a local doctor.

Since the "clinic" idea has become so firmly implanted in the public mind, Dr. Harris advocates the organization and control, by the medical profession, of clinics where the public may receive the most efficient care at a price that is commensurate with its means to pay. This should be done in a way that no legally and properly qualified doctor who desires to participate will be left out and that each will be remunerated for his services.

THE PASSING OF HEALING CULTS

According to a letter written by the editor of the Christian Science Watchman, the sect is experiencing a change of heart so far as their attitude towards medicine is concerned. "The tragedies that have been permitted in the name of Christian science by its over-zealous devotees" says the writer, "have largely justified the widespread prejudice against it." The independent minority movement in Christian science, we are told, is endeavoring to bring a new spirit of sanity and common sense into the practice of mental healing by "recognizing the unselfish humanitarian labors of the medical profession in alleviating human suffering." Then the letter goes on to tell us something that we all knew long ago, namely, that Christian science practice has very largely become a commercialized faith cure. It is the hundred per cent Christian scientist and his unfortunate children who have been the victims of the so-called tragedies. Every

* The General Practitioner in the Medical Scheme. By Dr. M. L. Harris, Journal A. M. A., December 1st, 1928.

doctor knows that many of the sect have sought medical care surreptitiously when they become alarmed over the patient's condition. The letter may be looked upon as a return to sanity of a portion of the group or it may mean the beginning of the passing of the cult.

Almost in the same breath we have the announcement of the passing of the chiropractor. The attendance at the Palmer school has declined from two thousand, eight or ten years ago, to approximately three hundred. In about forty chiropractic schools in the United States the total attendance is less than two thousand. Even the squandering of many dollars on lobbyists has failed, in the result sought.

Osteopathy is also on the down-grade. The number of schools teaching osteopathy has decreased from thirteen in 1920 to eight in 1927. Not only is there a decrease in cult institutions but likewise in the number of persons enrolling each year. Evidently the campaign of public health education is producing results. In Lincoln's words, you can't fool all the people all the time. Why worry?

AN IMPORTANT ANALGESIC

It has been common knowledge for a long time among X-ray workers that the X-rays possess very important analgesic properties. Richards, in 1921, drew attention to one of the less common uses of X-ray therapy, namely as a means of controlling the pain of *tic douloureux*. In 1925 Fender drew attention to the X-rays as a means of relieving pain of chronic *spondylitis deformans*. Carter* goes into detail in regard to the condition in which the X-rays have been found advantageous in the relief of pain, namely, trigeminal neuralgia, chronic mastitis, paresthesias of the tongue, some forms of osteo-arthritis, herpes zoster, inoperable malignancies, furunculosis and carbuncle, pelvic inflammatory bands and adhesions involving gall-bladder, duodenum, ileocecal and rectosigmoid regions, and tuberculosis peritonitis.

Where the relief of pain is the prime object sought in these cases so-called deep therapy should be avoided. The kilovoltage should be limited to the least that will give the desired penetration. The technical details are known to every radiologist.

Desjardins of the Mayo Clinic in endorsing the use of the X-rays in allaying pain explains the action as follows. It is the

opinion that the major factor is the affect on lymphocytes infiltrating such lesions. Lymphocytic infiltration is a common and sometimes major feature of many inflammatory processes. Lymphocytes are very sensitive to the X-rays by which large numbers of these cells are destroyed. Sometimes pain is due to pressure on nerves as they pass through openings or foramina just large enough to admit their exit in a normal state. In the case of swelling due to local inflammation the X-rays have a very salutary effect.

It is of course understood that pain is always a symptom and should not be treated at the exclusion of efforts to get at and where possible to remedy the cause. In cases, however, which may appear incurable such as malignancies an effort should be made to make the patient comfortable.

THE ANNALS OF MEDICAL HISTORY*

With the year just closed *The Annals of Medical History* completes its tenth volume. Begun during the last year of the war this publication has maintained the high standard of excellence with which it began its career. It has been a distinct contribution to the cultural aspects of medicine. The papers published therein have been in a large measure of permanent value as distinguished from the purely scientific paper which may become obsolete in less than half a decade. *The Annals of Medical History* is printed on the finest paper and the illustrations are as high grade as it is possible to make them. The second decade, we are told by the publishers, is being ushered in by a larger Journal, that is in content, with smaller pages, published bi-monthly instead of quarterly. Subscribing to such a Journal is a sort of professional duty in as much as it has an ideal rather than pragmatic value. It carries no advertising matter which is a substantial source of revenue to other professional publications. Hence the reasonableness of the appeal for support by the medical profession as a whole.

* Paul B. Hoebler, Publisher, New York.

WALTER HULME SAWYER, M.D.L.L.D.

This is not a biography in any sense but an appreciation—extremely inadequate at that—of a devoted and well-liked friend. I dote on the word "like"—it means so much. One likes those who can never disturb his peace, who are always welcome

* *Radiology*, January, 1929.

whether he is in pajamas or dinner clothes, whether busy or idle. Sawyer measures up to this standard. It would be a circumscribed and miserly mind that did not cheerfully react to his comings-in and rejoice in his chummy down-sittings.

I have no particular concern to tell where he was born, although I know, or to reveal his age, although it is recorded in "Who's Who." My interest lies in the towering importance of the fact that he was born somewhere and in my generation, and that he still lives, mingled with regret that Michigan citizenry which knows him so well and esteems him so highly cannot proudly proclaim his birth among them. In camp-meeting phraseology, this Wolverine writer would "feel to rejoice" had parturition taken place here instead of over there but border warfare with Ohio ceased nearly a century ago. So that's that, or as was mentioned in connection with a one-time popular beverage, "that's all."

It is recalled that when his name was proposed for the presidency of the Michigan State Medical Society there was used a paraphrase something like this of Conkling's famous speech nominating Grant—"You ask whence comes our Candidate, and we answer, from Hillsdale and its College of which he is trustee and which has bestowed upon him the L. L. D. degree, from Ann Arbor when the Board of Regents is in session, from important State and National Medical bodies, from an exacting clientele wont to depend upon his ministrations"—and more besides. The occasion was inspiring and the subject altogether worthy.

In Hillsdale to speak of the Red Cross is to refer to Sawyer; the liberty loan or draft war board again Sawyer; the activities of the Rotary Club, Sawyer; worthy civic enterprises and industrial undertakings, Sawyer always. Indeed as to the latter his enthusiasm once led him in paths of perplexity. Did he succumb? No indeed. It was Walter working out alone a difficult problem.

Once he was very ill and in grave danger. Was he courageous and unflinching? Ask any of the neighbors. He has recovered for which Dieu merci.

Apart from those connected with a charming family, his eye has been, largely, single to the interests of the profession of medicine. This has been his life, success in it his ambition—and success has been achieved. It may be said without exaggeration that the medical profession is deeply

his debtor. In emergencies he has been a prop and dependence. Affection and admiration for him are universal among his colleagues. He accepts responsibility, never holds off and always delivers the goods. On my Gorgas Memorial Calendar of today I read "Think before acting, act before forgetting." That's what Sawyer does.

My own association with him in business, and professionally and personally, has been most intimate. He is an admirable appreciator. No one has made to me so many amiable expressions. How stimulating and prideful the effect of these! In day-to-day contacts with fellow men such an example is worthy of emulation. In this speedy life too much "goes without saying."

Walter is a jolly good loser and has had large experience of this in bridge. His contagious laughter is music to the soul of C. B. B.



WALTER HULME SAWYER, M. D., L. L. D.

Dr. Sawyer '84m, is perhaps best known to Michigan graduates as a Regent of the University of Michigan, in which capacity he has given his best services to the University for twenty-two years. He was born in 1861, the son of George and Julia A. Sawyer, in Huron County, Ohio. Dr. Sawyer graduated from the Grass Lake (Michigan) High School in 1881 before entering the School of Medicine at the University. During the years 1881-1885, following his graduation, he was house surgeon at the University Hospital but ever since he has practiced in Hillsdale, Michigan, where he makes his home and where he married Miss Harriet B. Mitchell in 1888. Regent Sawyer is a trustee of Hillsdale College and has served as

a member of the Republican State Central Committee; the Michigan State Board of Registration in Medicine; the Detroit Academy of Medicine; the Tri-State Medical Society; a Fellow in the American College of Surgeons and as President of the Michigan State Medical Society. During the World War he was a member of the Michigan State Committee on Defense; the executive committee of the State Committee for Volunteer Medical Service Corps and contract surgeon assigned to Hillsdale College S. A. T. C.

—From *The Michigan Alumnus*.

EDITORIAL NOTES

A great many papers, especially those read at various conventions, come to the editor without the writer's address. It is the endeavor of the Journal to see that each contributor has an opportunity to revise the proof of his article. Sometimes this is impossible, owing to the fact that we have not had the writer's local address and his name may not be in the American Medical Directory. This is particularly true of contributors who may be connected with hospitals or institutions an insufficient length of time to be registered in the directory. All inconvenience may be avoided by attaching the address in full to the paper, as well as to detached charts or photographs which may be used as illustrations.

ODDS AND ENDS

"Choose diligently and well digest the volume best suited to thy case,
Touching not religion with levity nor deep things
when thou art wearied,
The morning air fresheneth thy spirit, grapple
then with science and philosophy,
Noon hath unnerved thy thought, dream then
awhile on fiction,
Somber evening quieteth thy spirit, walk thou
then with worshippers,
But reason shall dig deepest in the night and
fancy fly most free."

—Tupper, *Proverbial Philosophy*.

Josiah Brush a traveling man,
Who sailed the briny main.
Was Mr. Brush in England,
And Senor Brush in Spain;
The Frenchman called him Monsieur Brush,
But the Germans were his bane,
For they always called him Herr Brush,
Which filled his soul with pain.

—Congregationalist.

At the age of sixty every man should be economically independent. The chances are he will not wish to retire then, and more power to him, but if he should wish to or if circumstances should

force him to it, he should be in a position to do so. To every man, and generally with the shock of unexpectedness, comes the stark truth of Emerson's lines in "Terminus":

It is time to be old,
To take in sail:—
The god of bounds,
Who sets to seas a shore,
Came to me in his fatal rounds,
And said: "No more!
No farther shoot
Thy broad ambitious branches, and thy root.
Fancy departs: no more invent;
Contract thy firmament
To compass of a tent."

—New England Journal of Medicine.

NEWS AND ANNOUNCEMENTS

Thereby Forming Historical Records

The Journal extends the sympathy of our members to Dr. C. C. Clancy, past president, by reason of the death of Mrs. Clancy at the family residence in Port Huron.

Invitation has been extended by the Wayne County Medical Society, President Hirschman, Detroit Convention Bureau, Detroit Hotel Association, Governor Green and the Detroit Chamber of Commerce to the American Medical Association to hold its 1930 session in Detroit.

President Hirschman participated in the A. M. A. radio program during the Chicago session. Dr. Hirschman spoke at 10 a. m., on January 17th.

Dr. A. William Lescohier has been appointed general manager of Parke, Davis & Company, according to an announcement made public on January 10 by Oscar W. Smith, president of the company. Dr. Lescohier has been connected with the company for the past twenty years and has most recently occupied the position of assistant to the president. After graduation from the Detroit College of Medicine in 1909 he entered the company's employ as a member of its scientific research staff. In 1918 he was placed in charge of the production of serums, vaccines, antitoxins, and other biological products.

In 1925 he became director of the Department of Experimental Medicine, and in that capacity was in constant touch with physicians and scientific workers in the leading hospitals and medical colleges of the country.

Dr. Lescohier is a Fellow of the American Medical Association and belongs to the American Therapeutic Society and other scientific organizations.

In professional circles the appointment of a physician and research scientist to this important post will doubtless be noted with interest, as the development and manufacture of highly scientific products for physicians' use has constituted the most important division of the company's business ever since its founding, more than sixty years ago.

Parke, Davis & Company are the world's largest makers of pharmaceutical and biological products, with home offices and laboratories in Detroit, Michigan, and with branch laboratories in a number of foreign countries.

DEATHS

The death of Dr. Delbert E. Robinson, December 23rd, 1928, ended the useful career of a man who did more good in his community for many years following 1896 than any other person. He located in Jackson that year after a very long post-graduate course in Chicago, besides two or more years in New York City. He began his career as a pioneer in abdominal surgery. Acting upon his convictions, he began immediately to treat patients by operative or by mechanical methods after the most searching and painstaking diagnosis of cases which had been previously overlooked by faulty or hasty efforts at diagnosis, or which if diagnosed were mostly studied at the University Hospital at Ann Arbor. In acute or fulminant cases this could not be done. Other physicians working with him soon recognized the fact that he had much to teach. Other surgeons were lead to improve their methods and were stimulated to attempt surgery that they had never tried before. One important point which shows him a real pioneer surgeon is the fact that many of the questions which came up in those days were far from settled; things were in the doubtful and experimental stage which have since become settled and are now common knowledge, and he had no confrere of sufficient surgical experience to consult with. Others soon began to do abdominal surgery because of Dr. Robinson's generosity in always being ready to assist and to coach them. Thus by taking the man's responsibility and sharing the anxiety of other cases, he carried largely a double portion of that most wearing of medical work. Very shortly after he began practice in Jackson he became the chief consultant of Jackson county in both medical and surgical cases. During the first years of his practice here he did not have the assistance of the X-ray, and was compelled often to operate on cases of bone and joint injury that no one would now attempt without such assistance. Observing his practice, fractures were treated much more precisely and successfully than before. He had a very large surgical experience covering many years. The number of lives he saved by prompt and skillful operative work is very great and the number of useful limbs and joints which his skill restored after injury would be astonishing could they all be tabulated. Very many of them were in the days when much of the work had to be done in homes or in the infancy of our hospitals. He practiced in Manistee from 1881 to 1895, and after a year of post-graduate work in Chicago, located in Jackson (1896), where he practiced until his final illness. He was one of the charter members and past presidents of the Jackson County Medical Society. Also a charter member and president for several years of the Jackson Art Association. He was one of the founders of the Jackson Clinic, and formerly chief of staff of the Jackson City Hospital. His medical memberships included the American College of Surgeons, the American Medical Association, the Association of Railway Surgeons, and others. He was surgeon for the New York Central lines, Michigan Electric Railway, Consumers Power Company. Kindly and modest, almost to a fault, he leaves a host of medical and lay friends to mourn his passing.

J. G. WHITE

Dr. J. G. White, Mount Clemens, died at his home, December 20, 1928.

FREDERICK SHILLITO

Dr. Frederick Shillito, aged 71, of Kalamazoo, is dead. The doctor had been a resident of Kalamazoo since 1902, where he had carried on a successful practice. He was born at Espyville, Pennsylvania, in 1857. He received the degree of A.B. at the Allegheny College in 1880, and later, the degree of M. A. He graduated from the Kentucky School of Medicine in 1883 and from the Rush Medical College at Chicago in 1890. Dr. Shillito was a past president of the Kalamazoo Academy of Medicine and at the time of his death, chairman of the legislative committee of the Academy of Medicine. He was a member of the Michigan State Medical Society and the American Medical Association. The doctor belonged to the Knights Templar and also the Elks. He is survived by his wife and a daughter, Miss Margaret Shillito, who lives at home, and a son, Frederick H., who is a student at the Medical School of Harvard University.

PHILIP EDGAR MARTIN

Dr. Philip Edgar Martin of Imlay City, Michigan, was instantly killed on January 8, 1929, at 9:30 p. m., by his automobile skidding into the ditch on the icy road while he was answering a call.

Philip Edgar Martin was born in Lindsay, Ontario, Canada, October 6, 1870, the son of Philip Sanford Martin and Mary Louise Carson. He was one of three children, the others being George, who died in 1903, and Jack, who died in infancy.

He was educated in the public schools of Lindsay until the age of twelve, then going to Upper Canada College of Toronto, a preparatory school, Trinity College of Medicine at Toronto three years, one year at Detroit College of Medicine, graduating in 1891 at the age of twenty-one years.

Immediately after graduation he located at Orion, Michigan, where he married Jessie M. Anderson, February 17, 1892. In 1899 he moved to Imlay City, where he continued the general practice of medicine until his untimely death.

Surviving are his wife, Jessie M., a daughter, Kathryn M., and a son, Harry E. One son, Kenneth C., accidentally met his death by drowning in 1913 at the age of seventeen.

Dr. Martin was a member of the following orders and societies: Lapeer County Medical Society, Michigan State Medical Association, American Medical Association, Royal Arcanum, Foresters, Modern Woodmen, Imlay City Lodge, No. 341, F. & A. M., and Romeo Commandery, Knights Templar.

Funeral services were conducted at the late residence of the deceased by Rev. James F. Goodman, and interment was in the Orion cemetery.

RESOLUTIONS OF RESPECT

Whereas, it has pleased Almighty God to take from our midst and from our association, our esteemed friend and brother, Dr. F. J. Fralick, therefore, be it

RESOLVED, That in his death the Montcalm and Ionia County Medical Association loses a faithful and considerate member and one whose

company, acquaintance and counsel will be deeply missed; the community in which he lived has lost a valuable citizen of high character and the family has lost a husband and father whose first thought and consideration was always for their welfare, and be it further

RESOLVED, That in testimony of our loss we, of the Montcalm and Ionia County Medical Association, extend our deep and sincere sympathy to the afflicted family and that a copy of these resolutions be sent to the family and that these resolutions be inscribed on our record book as a permanent record of the esteem and sorrow which we hold for our departed brother.

Montcalm and Ionia Medical Association,
By G. A. S. and J. F. P.,
Resolutions Committee.

COMMUNICATIONS

F. C. Warnshuis, Secretary of the Michigan State Medical Society:

The good wishes of yourself and members of the Michigan State Medical Society, conveyed in your wire of January 1st, were a happy feature of the day. Please express my sincere thanks and very best wishes to the members of the Society for prosperity and happiness during the coming year.

Sincerely yours,
Fred W. Green.

F. C. Warnshuis, Secretary of the Michigan State Medical Society:

I want to express to you my delight at the success of the recent conference of county secretaries at the headquarters of the A. M. A. in Chicago.

I believe that the insight which these secretaries received of the character of the personnel in charge of the different departments of the A. M. A. will do a great deal to increase their interest in organized medicine and confidence in the men who are in charge of our organization's activities.

Their reports to the members of County Societies should bring about a better understanding of the real value of the A. M. A., its councils and publications to the individual physician.

I am so thoroughly convinced of the educational value of this conference that I believe it should be repeated every three or four years.

Very truly yours,
Louis J. Hirschman, M. D., President.

F. C. Warnshuis, Secretary of the Michigan State Medical Society:

I wish to express my appreciation of the way in which the Michigan State Medical Society and the American Medical Association made it possible for me, as one of the county secretaries, to have the opportunity of learning what is being done for scientific medicine in our state and country.

I never had realized what a great institution the A. M. A. really was. It was a pleasure to meet personally the different heads of the vari-

ous departments and find out that they were real men doing a real job. One of the most impressive things about the actual working of the organization was the length of time some of the employees had been there. I think this has a great deal to do with the success of the organization. The courtesy shown us by every one was to me remarkable.

I feel that I will be in a position to answer questions from the members of my County Society in such a way that they will realize more fully the value of being a member of the County, State and National medical organization.

I believe the meeting was well worth while and I am glad it was my privilege to be there.

Sincerely,
R. G. B. Marsh.

F. C. Warnshuis, Secretary of the Michigan State Medical Society:

The conference of secretaries and councilors in Chicago was certainly most interesting and pleasant. From the talks of the bureau chiefs, general secretary, and the editor, we gained a more definite impression of the tremendous work being done for the practicing physician.

Very truly yours,
C. E. Toshach, Secretary.

F. C. Warnshuis, Secretary of the Michigan State Medical Society:

I am just back from the meeting of the Michigan County Secretaries at the A. M. A. headquarters in Chicago.

To my mind this is the most valuable meeting yet arranged for this organization.

To meet the heads of the various departments right on their jobs, to have them explain their hopes and plans to make a better medical practice in American communities and to render a better medical service to the nation, is an inspiration.

I was impressed with the type of men in charge. Each man seemed a master in his own field of service, competent, efficient, alert and with a sense of the relationship of the work he is doing with that of the other departments.

The program of the American Medical Association is very comprehensive, is well arranged and in the hands of able men, headed in the right direction.

What a boost to medical practice in our state if every practitioner could have the privilege of a visit to headquarters such as the secretaries have experienced.

Cordially yours,
Theron S. Langford, M. D. Secretary,
Washtenaw County Medical Society.

F. C. Warnshuis, Secretary of the Michigan State Medical Society:

I wish to congratulate you, the officers and the Council of the Michigan State Medical Society on the success of the recent secretaries' conference at the headquarters of the American Medical Association in Chicago.

Up to this time, my idea of the American Medical Association has been that it was an organization of physicians which published a weekly journal, a few special journals, a medical journal for the laity, which holds an annual session, and which has a few committees who pass on certain classes of drugs and prosecute manufacturers of certain fraudulent proprietary drugs.

Since meeting, hearing, and conversing with the officers and heads of the various councils, bureaus, and departments, I cannot but be greatly impressed by their whole-hearted co-operation, their multitudinous activities and sincerity of purpose. They are doing everything possible to further the interests of the medical profession, promoting the art and science of medicine, and doing this from a great many unsuspected angles.

The primary purpose of the American Medical Association, as I see it, is educational; the classification of medical schools and hospitals for the student of medicine; the prevention of fraudulent exploitation of drugs and apparatus, the instruction of the laity on the truths of scientific medicine; and the self-instruction of the individual physician through the various publications, the Library Package, and the periodical lending service.

Other impressions which I have received from this conference are: the great importance of the local County Medical Society as the basic unit of organized medicine; that the County Medical Society meetings must not become subservient to hospital staff or other society meetings; that our Code of Ethics has not gone out of fashion, it being the one thing that has promoted the art and science of medicine and prevented fierce commercialism from entering our practice; that it is the duty of everyone of the medical profession to see to it that we give the utmost in thoroughness in the examination and care of the sick—by doing this we are giving the sick something which would be an absolute impossibility for them to get by any other means; and that the American Medical Association is an organization which works 24 hours a day and which spends two million dollars a year, all for my individual interest as a practicing physician and a Fellow of the association. It seems to me that I must be of quite some importance, after all.

I wish to thank you, the officers and council of the Michigan State Medical Society, for giving me this opportunity of attending this, the most interesting meeting in years.

Sincerely yours,

E. F. Sladek, M. D., Secretary,
Grand Traverse-Leelanau Co. Med. Society.

F. C. Warnshuis, Secretary of the Michigan State Medical Society:

Holding the conference of County Secretaries at the headquarters of the American Medical Association, Chicago, was a splendid idea.

The addresses of the various bureau directors, of Dr. Fishbein, the editor, and of Dr. West, the secretary, as well as the tour of the A. M. A. building, were most instructive and the knowledge gained should be of great value to every County Secretary.

Every County Secretary, so fortunate as to attend the conference, could not help being inspired by this splendid meeting.

Very truly yours,

C. A. Neafie, Secretary,
Oakland County Medical Society.

F. C. Warnshuis, Secretary of the Michigan State Medical Society:

I have been attending medical meetings, group conferences, etc., ever since "the iron horse was a colt", many of them good, some worse. How-

ever, I will say that the Chicago meeting was one of the best arranged, most pleasant and instructive group meetings I have ever attended.

The evening meeting, preceded by a wonderful dinner which was followed by those two wonderful addresses by Doctors Harris and West, alone was worth the trip to Chicago.

I have been a member of the American Medical Association since my graduation, some nineteen years ago, but never until now did I appreciate what such membership meant to me personally, or what the association meant to the profession at large.

The meeting at the association headquarters on Thursday, at which the workings of the various bureaus and departments were explained to us by those in charge of these departments, was indeed a revelation to me, and I dare say, to most of the others present. It gave us an authoritative insight into the work of the association in its various ramifications and brought home to us very forcibly the immense value of the association to the State and County Societies and particularly to each of us as practicing physicians.

I want to congratulate you upon the success of this meeting. It was thoughtfully planned and wonderfully carried out.

Fraternally yours,

W. B. Newton, M. D., Secretary,
Alpena County Medical Society.

F. C. Warnshuis, Secretary of the Michigan State Medical Society:

This will acknowledge the receipt of your telegram expressing the protest of the members of the medical profession of Michigan against favorable consideration of H. R. 14070, "To provide a Child Welfare Extension Service, and for other purposes".

I thank you for telegraphing me your views in regard to this matter.

With best wishes, I am,

Very sincerely yours,

Carl E. Mapes.

F. C. Warnshuis, Secretary of the Michigan State Medical Society:

The gathering of the Michigan County Society Secretaries at the headquarters of organized medicine in Chicago was a fine gesture toward progress, and is bound to react in a favorable manner in the county units represented.

By singling out the secretary for a gathering of this kind it seems as though he is no longer considered a mere clerk. By giving him this opportunity of observing the highest form of medical organization it places him in a position of responsibility and leadership in his society, and acceptance of this invitation should compel him to meet the obligation as well.

Viewing the A. M. A. as a working unit, it seems to me that it is the keystone in the arch of service, and justification for its existence, as well as that of the County Society, lies in its program of service to the individuals who compose it.

We saw the A. M. A. from cellar to garret and in its every day working clothes doing its stuff to serve the 62,000 Fellows of the association. Organized and developed through years of toil, with the object of keeping clean the traditions of an ancient and honorable profession, it stands,

like a beacon light, giving to the world its beams in its effort to let the light shine on error, superstition and quackery, and to hold scientific medicine in its true course.

We are in accord with the plan of getting the secretaries together every year, and believe that the presidents should come along, too, and lay plans and exchange ideas pertaining to economics, organization, public health education, etc.

Sincerely yours,

Harry B. Knapp, M. D., Secretary,
Calhoun County Medical Society.

F. C. Warnshuis, Secretary of the Michigan State Medical Society:

The things that impressed me, on the occasion of the recent meeting of County Secretaries, in Chicago, would list about as follows:

1. The large attendance of Michigan Secretaries, mostly men in active practice.

2. The magnitude of the plant of the American Medical Association; very few members realize the number or the extent of the activities of our own organization.

3. The approachability of the men (and women) engaged in these activities; their willingness, even anxiety to be of real help to the Society and its individual members.

4. The command which this organization has, of the services for the asking, of the best and biggest men in the profession.

5. The special advantages of Michigan practitioners over most others in the use of the various helps offered by the Association to its members. If we can put this one idea over, it was indeed worth while.

With kindest personal regards, I am

Yours very sincerely,

John J. McCann.

F. C. Warnshuis, Secretary of the Michigan State Medical Society:

The idea of holding the Secretaries Conference in Chicago was a novel one and of inestimable value. There is always a great deal to be gained by meeting with and exchanging ideas with the other secretaries. In this instance, however, the inspiration of meeting and hearing the A. M. A. officials and the intimate knowledge of seeing how they do things at the headquarters of our parent organization was a real education.

Every county secretary should have this knowledge and experience.

Fraternally yours,

L. Fernald Foster,
Secretary Bay County.

"AS ONE SECRETARY SAW IT"

Dear "Doc":

Have to tell you all about my trip to the big city and visit to headquarters of the A. M. A.

In the first place friend wife decided that it was best she go along to see that I didn't get lost in the loop or get a stiff neck looking at the tall buildings, but you know that the best sights are seen when you keep your head down.

Well, we made the trip in fine time, arriving rather chilled from the drive. At the hotel the room clerk thought we looked suspicious because we only had one bag. Guess he figured that would not pay for the room if we skipped. But when

I explained we were only going to stay for one night, he agreed, only he didn't say so, that more than one bag would be foolish.

We got over the chill with the aid of a pocket piece that the wife had given me for Xmas, and the increase of spirits put us in fine fettle for the banquet to be served at 6:30.

Took my sweetie down to the "something or other room" for dinner and then I floated to the banquet room. Met a lot of the fellows, including the Jackson handshakers.

We sure had a fine feed laid out, oysters, consommé, steak, etc. Leading off the program was our president, Louis Hirschman, who expressed the usual "How happy we all are to be here," and then "Maurice" Fishbein with a flow of patter that would put a ballyhoo man to shame. My gosh, how that man can talk! It's a mystery how he keeps his words from tripping over each other.

I sure hope he keeps his promise to come over to our county and address a public meeting in the spring. He certainly should be able to interest the public.

Then everybody gave Dr. Harris, president elect, a standing greeting and he started his talk. Say! There's a truly grand old man. One of those keen old boys with a poker face. What he didn't tell the assembled medicos about giving away their services to free clinics. I only wish some of these pseudo-altruistic social workers could have heard it. The idea of pauperizing the public, and the cost of medical care were sure dragged out and exposed to view.

Following his talk Dr. Olin West, the general secretary, was the next on the list. Without any doubt, he sure is a hard hitter, and if he isn't sincere, then my ideas of who's who, are all wet. His talk was dovetailed with that of Dr. Harris, and if you could go back home, and hand out a lot of cheap psychology to the so-called "neurotics," without getting their histories and giving them a decent examination, then you sure are a hardshell.

Boy, he sure told a few truths, and do you know what particularly got me was his little allusion to the quacks, and how we were to blame for their existence when we, to use a Fishbeinism, get careless with the "stuff that is spread on the lawns and fields." I think he's right when he says, "The way to get rid of quacks and cults, is to be collectively and individually the best doctors it is possible to be.

Then after the introduction of some of the heads of the A. M. A. Bureaus we were dismissed, with the admonition, to be at the A. M. A. building in the a. m., ready for an all day session.

When I met the other half of the Mr. and Mrs. I was all enthused and we started out to see some night life. The bright lights, and the firewagons, and the danged L kept me up until late, and in the morning arrived at the headquarters feeling somewhat like the bottom of the waste basket. You know what that is like, somebody always tosses things there when they ought to be in the can with a top. Well, I got there late, but some of the young ducks arrived later than I.

The session was going good. Dr. Colwell was telling all about the hospitals and colleges, and how his department classified them, and how each co-operated with the other.

Then Doc Leech, head of the Chemical Laboratory, told us all about what he did there. He sure looks like a good head, one of these energetic fellows full of pep, good natured and competent looking.

Then The Doctor, Head of the Bureau of Investigation, A. J. Cramp. Talk about that professional appearance. If he wasn't the picture of all that a successful, competent, clear thinking doctor should be. Close cropped van Dyke, keen sparkling eyes, and just enough nervousness about his carriage to let you know of a high spirit underneath. He gave a brief summary of the duties and methods of his department, in investigating nostrums, etc.

Then Dr. W. A. Puckner, a fine, kindly old man, was the next speaker, Secretary of the Council of Pharmacy and Chemistry. Dr. Puckner is blind, yet to see and hear him talk you would never guess it.

About this time everybody needed a stretch so time was called and a little gab fest enjoyed. Met Dr. McLaughlin, head of the United States Public Health Service, who had happened to drop in at the A. M. A. headquarters. You know he was raised in our county and wanted to know how all his friends back here were. I forgot to mention meeting Ed Collins. He's one of the chemists that do the analyzing in the lab. Asked him if he was any good at liquor, but he said the only sure test was the survival one. Used to know "Collie" in Ann Arbor where he got his Ph. D., and played in the band with him. He played clarinet, and of course anyone who plays a clarinet wouldn't think of testing liquor. By the way, I wonder who it was that dropped that flask just before intermission. You ought to have heard it. It embarrassed me, as whoever it was sat close by, and I kept my face straight ahead so they wouldn't think it was me. You never know when one of these dry sleuths might be present and shoot you on suspicion.

Met another chemist, a Dr. Leland. He graduated from Ann Arbor before I did. Small world we were born in. He got his start over in Mendon in St. Joe township, and that's where I first saw light on the 4th of July about so and so years ago.

Well, the meeting resumed with Dr. Fishbein quoting a string of statistics and figures a mile long without even pausing for breath. All about how many Journals are put out, how many letters are answered, and details in publishing the magazines.

Dr. Woodward then told us all about the medico-legal side, the listing of decisions, the fight for income fee reduction for travel expense to medical meetings, and other interesting details of the legal struggle medicine is constantly up against.

Dr. John M. Dodson explained all the education

pamphlets put out by the national society, the charts and the periodical traveling libraries that are available to all members. He runs the Health and Public Instruction Bureau. It's too bad everybody doesn't know how much information they can get from his department by just paying the mailing expense on articles on almost any topic.

Winding up the bureau heads we heard Dr. Holmquist on "Physical Therapy." This is the youngest department of the Society, and they are doing lots of valuable work in classifying the various types of physical therapy apparatus and trying to keep the manufacturers within reasonable bonds in the advertising and disposing of their products both to physicians and laymen.

Dr. Olin West gave a marvelous summary of everything, urging all of us to remember that this is our Society; how everyone was joint owner and how willing each and every one of the secretaries and trustees were to go to any bounds to accommodate the members. He also touched briefly on the committee organized to ascertain the cost of medical care, and the hopes that this would bring out valuable information for both layman and physician.

Well, all in all, "Doc", I sure had a wonderful trip and it's too bad that every member of the A. M. A. was not able to take advantage of this conference, and more than that, I only wish that some of the practitioners who refuse to join with organized medicine could see, and hear what we did. If they only could, we never would hear this old cry of "It's a high and mighty closed organization run by a few to control and make money off the practicing physician."

I sure got my money's worth even if the wife did spend a lot of it shopping while I listened in.

Be sure and drop in to see us some time. You know what we are famous for in this locality.

Must close here as I have to send Friend Warnshuis a short write-up on this meeting as to the amount of my carfare to and from the city. You see, if we don't send him some kind of a write-up to pad The Journal with, he's apt to hold back on that carfare and hotel expense the council promised us. Speaking of this, it sure was funny to see how the secretaries from way up north turned out. I don't blame them, if I were in their place, they would never get me back home in this kind of weather.

Suppose I won't get to see you until the Jackson meeting, so be careful and let us hear from you occasionally.

Yours unprofessionally,
(Deleted).

NO FIXED LIMIT FOR LENGTH OF HUMAN LIFE

No fixed limit to the length of human life exists, declared Dr. Eugene Lyman Fisk before the recent meeting of the American Association for the Advancement of Science. "The prolongation of human life far beyond the most favorable life cycles lies within the legitimate bounds of scientific effort," said Dr. Fisk. "To believe that the length of human life is fixed by some supernatural agent is just as crude as to believe that all existing organisms came out of the Ark. Such an idea belongs to fundamentalism, not to science.

"The idea of time having an effect on ageing and decay exerts an enormous influence and may be found in practically every textbook of medi-

cine, but it is as baseless as the jargon of a voodoo savage. Old age is a disease. Death is always due to pathology. The things that happen in the course of time are the influential factors. Given sufficient knowledge and power, these things can be brought in some degree under human control, as Sir Arthur Keith has stated."

Possible causes of human breakdown were summarized by Dr. Fisk as heredity, infection, poisons, food deficiency or excess, air deficiencies or defects, hormone deficiency or excess, physical trauma or strain, physical apathy or disuse, psychic trauma or strain, and psychic apathy or disuse.—Science Service.

COUNTY SOCIETY ACTIVITY

Revealing Achievements and Recording Service

EDITOR: Frederick C. Warnshuis, M. D.

Secretary Michigan State Medical Society

CRIPPLED CHILDREN COMMISSION

The subject of hospital schools and convalescent education of crippled children is one which may well occupy some of the time and attention of members of this conference. It is too large a subject to be satisfactorily solved by the available, comparatively meager statistics. That the need for convalescent education is an established fact is recognized in the present crippled children law by the setting aside of more than one-third of the entire appropriation for educational purposes. The material contained in the following paragraphs is a review of the situation existing in the state today as it presents itself to workers in the field. It is hoped that by January 1, 1929, sufficient statistics will have been compiled to warrant the making of definite recommendations.

The original draft of the present law contained in provision for one large convalescent school to be located in Ypsilanti, or Ann Arbor. The present tendency as expressed by the component parts of the International Society For Crippled Children, is toward decentralization, and instead of one centralized convalescent institution, provisions are being made in various states for several smaller units.

It has been stated by promoters of the original provision for one large school that the same request should be incorporated in the proposed legislation. The reason given for this statement being that if a change is made, and instead of asking for one large school, several smaller ones located at various points throughout the state are desired, that the Legislature will say the change of mind indicates a vacillation of judgment, which might lead to injudicious expenditure of the appropriation sought.

The present bill became effective July 1, 1927. During the 15 months which have elapsed since that time, it has become quite apparent that the needs of the crippled children of the state will be more adequately met by the centralized program.

The keynote of the situation was sounded yesterday in the idea expressed

that the Legislative enactment, in order to accomplish the results desired, namely: the care, treatment and education of the crippled children of our state, must be built upon a firm foundation, the rocks of which are the suffering and neglect endured by cripples for the past twenty centuries, the enclosing walls of which are made of the sympathetic and scientific understanding of the needs of these handicapped potential citizens of our state, and from the towering heights of which there floats a banner dedicating this structure to the inalienable rights of our less fortunate brothers and not to the personal glory of any one selfish individual looking to his own glorification. It was stated yesterday that the present facilities for teacher training at Ypsilanti were inadequate. That might seem for an argument for locating a large convalescent hospital school in that city. Special training for teachers of classes for crippled children is necessary. The theory now in effect of requiring a life certificate or its equivalent, and one year of special training, is a good one.

Six teachers were graduated last season. Four new classes were opened this fall and one extra teacher added to an already established class. The number graduating from the special class department at this time seems to fill the present demand. Doubtless this judgment from the quality as well as numbers of the teachers for crippled children as they exist in Michigan today, the standards are high and the supply is adequately filling the demand.

It has been said of this great problem that it will never be solved until capital boards of education awake to the advantages of special class education. Michigan has eighty-five cities of three thousand and more population. At three per thousand, which is the estimated number of crippled children under twenty-one years of age, each of these has at least fifteen cripples. Statistics have proven that from one-third to one-half of all crippled children need the benefit of special class education. At a minimum of fifteen cripples per city, from five to seven or eight should be in special classes. Only five are re-

quired by law to form such a class. A great part of this educational program will have been met, when every city of at least three thousand population establishes and maintains a special class for cripples.

Michigan has an estimated number of 15,000 crippled children today. Five thousand to seven thousand five hundred of these should be in special classes. Public demand for special classes needs to be increased.

Michigan is supplied with three convalescent schools where academic education is provided. Sigma Gamma Convalescent Home reports forty-four beds. University of Michigan Convalescent School two hundred beds. Children's Hospital of Michigan reports two hundred and fifty beds. This is a total of less than five hundred beds for convalescent education. To learn much of consequence, a sick child needs to be under instruction at least half a school year. Assuming that these children remain that length of time, the total number of children receiving a recognizable quantity at the most is about one thousand annually. Add to this the number receiving instruction in special classes in public schools and it is easily deducted that the five thousand to seven thousand five hundred who need special class instruction is no where nearly approached.

Between these two extremes, the children receiving bedside instruction and those in special classes in public schools, there is a vast number who do not require acute hospital service, but who do need to be provided with an education. This class includes cripples in families where mothers and fathers work and have no one to leave at home in charge of crippled members of the family. There is an increasing demand for a place where these children can be boarded at the expense of the family or the state, and where scientific care can be administered.

Parents of crippled children fall into two main classifications: Those who mistreat and neglect their children and those who are over-indulgent, either of which produces as deleterious results as the other.

The mother who says "My child will never be operated on as long as I live," fails to take into consideration the fact that she will reach her three score years and ten long before her child reaches that age, and when she is dead and gone the world will not pamper him as she has done, and what is really the best thing she can do for her child is to train him in self-reliance, rather than encourage him in be-

coming a millstone on the neck of society.

Should the state of Michigan take these children away from their families by force and operate on them in hospitals? No, but she should carry on a program of education of the families as to the possibilities under modern medical science and surgery.

Should she place them in schools where they can be taught by people specially trained to handle their varying ailments, inferiority complexes, over-indulged dispositions and physical handicaps, and teach them to become self-supporting, self-respecting and respected citizens of whom she can be proud? By all means, the answer is "YES".

Assuming that convalescent education is both desirable and necessary, then how shall it be provided, and to whom shall it be made available? Try to put yourself in the place of the mother or father of scanty education, imagine a child of yours being a cripple—would you prefer to educate such a child in a large institution two hundred miles from your home, or in a smaller, more home-like unit close to your domicile where you might visit at frequent intervals?

It is argued that one large institution can be operated more economically than several smaller ones. Perhaps that is true in terms of dollars and cents, but this discussion has to do with human lives, and human possibilities, and the souls of crippled children.

For the purposes of argument will you consider a small or moderate sized convalescent hospital school, perhaps in connection with an orthopedic operating center, in southwest Michigan, another in southeast Michigan, one in northeast, another in northwest and one in the upper peninsula.

Does anyone expect to go out tomorrow and build all of them? By no means. This is an enormous problem. More so than most people comprehend, and must be a steadily growing proposition. What Michigan needs is a permanent program covering at least ten years of time, building one such unit every two years, thereby meeting the best interests of the crippled children and the citizens of the state.

In all the years gone by, there have been countless numbers of crippled children who have not had the opportunity of going to school. The primary school money paid year after year to their school district has been used for the extra advantage of the normal pupils who are able to attend school.

The cripples of the state have a big debt

owing to them at the present time. Not only have they been deprived of their rightful funds through physical inability to make use of them, but they are rightfully entitled to these funds today, plus the interest on them during the many years gone by.

Who shall be placed in these convalescent schools? Those crippled children under twenty-one years of age who do not need acute hospital treatment and who are not sufficiently well to be transported to and from schools maintaining special classes or who may, even better, be cared for in regular school classes. They should not be limited to children of school age, but should provide kindergarten and pre-school or nursery education.

Why should they accommodate those below school age? Because years of time are lost by waiting until the school age is reached. If crippled children can be treated and trained before reaching the age of sixteen years, then the Rehabilitation Department has its problem half solved. In like manner if treatment is given and some idea of self-reliance taught and the socialized education begun in pre-school years, then another large part of the problem has met solution.

The mentality of crippled children is an important feature. It cannot be judged hastily, social experiences and environmental limitations handicap a cripple. Given the right surroundings a so-called sub-normal cripple often advances educationally in amazing strides. It was stated yesterday that 25 per cent of the cripples of a certain school have a mental intelligence quotient below seventy. True, some of these are hopeless, but many of them, though definitely subnormal, may be trained in routine jobs and thus made independent. Whether subnormal, average, or super-normal, vocational as well as academic instruction should be provided.

Vocational education is a splendid start in the field, but vocational guidance and placement is the ultimate end to be sought. In addition to academic and vocational guidance, a placement department is needed in connection with schools. It is only when the state will make possible suitable treatment, education and training, and then provide employment as well, that the needs and the rights of cripples will be satisfactorily fulfilled.

MID-ANNUAL COUNCIL MEETING

The Mid-Winter Session of the Council was held at the headquarters of the Amer-

ican Medical Association on January 16th. The minutes appear in this issue.

The selection of meeting place was most happy. It resulted in Councilors gaining an insight of the tremendous amount of work that is being accomplished by the American Medical Association in the interests of the individual doctor. Every member will gain this insight if they will read the report of the Secretaries Conference published in this issue.

A. M. A. officials were most courteous and hospitable and tendered a luncheon on both days of this session. Expressions of gratitude and appreciation are hereby recorded and extended.

Miscellaneous Meetings—There are far too many interstate and sectional medical clinics and meetings. Loyalty to your County, State and American Medical Associations are of first importance. Inasmuch as these miscellaneous meetings tend to detract, it has been our policy to decline to give publicity to such outside meetings.

Dues—Annual dues are now payable to your County Secretary. Please lessen the labors of your Secretary by prompt remittance. They might as well be paid today in place of waiting till March 1st.

Mid-Winter Meeting of Council and Secretaries Conference—Elsewhere in this issue will be found the minutes of these sessions.

Income Tax Reports—Remember you are entitled to include in your expenses money spent in attending medical meetings and pursuing post-graduate work.

Staff Membership and Society Membership—Within the month a statement emanated from Detroit that 12 per cent of the members of hospital and clinic staffs in Detroit were not members of the Wayne County Medical Society. We are in accord with the Bulletin's statement that this is a deplorable situation. These 12 per cent of staff members benefit by reason of Medical Society activity, yet they are content to "crash in" on these benefits and decline to support those who labor in their interests. They accept staff appointment, yet desist from aiding organized effort that has made hospital appointments valued personal assets. We can classify such men in but one class—"Poachers." To terminate such poaching, County Society officers should exert their influence upon hospital

authorities to secure the adoption of a rule that no doctor can hold a staff position unless he is a member of his County Medical Society.

Personnel — Officers and Committees — Each month The Journal contains in its front advertising form a rostra of the officers and standing committees. In the back advertising form there will be found a list of County Societies together with the names of the President and Secretary of each county. This statement is made for the reason that several letters are received each month requesting information pertaining to officers and committees listed.

Legislation—Assurance is given to every member that every bill that is introduced in the legislature is being carefully read. The quest is to find enactment clauses that deal with or impinge upon medical practice. Bear stories are being circulated and dire predictions are being made in some quarters. We caution against these alarmists. When action becomes necessary the official call will emanate from this office. In the meantime, maintain friendly contact with your Senators and Representatives.

ST. CLAIR COUNTY

The St. Clair County Medical Society held its annual election of officers as follows:

President, Dr. George Kesl; vice president, Dr. C. F. Thomas; secretary and treasurer, Dr. Isaac Bowden; delegate, Dr. Alex McKenzie; alternate, Dr. Reginald Smith.

A motion to re-elect the retiring directors carried.

Dr. Wm. Cassidy gave a talk on fractures of extremities, which was appreciated by all.

Dr. I. Bowden, Secretary.

ALPENA COUNTY

The annual meeting of the Alpena County Medical Society was held Wednesday evening at the home of Dr. W. B. Newton on State avenue. Dr. E. L. Foley was elected president of the society; Dr. John S. Jackson, vice-president; Dr. W. B. Newton, secretary-treasurer; Dr. Foley, legal representative; Dr. S. T. Bell, delegate to the state society; Dr. D. A. Cameron, alternate.

W. B. Newton, Secretary.

SAGINAW COUNTY

The annual meeting of the Saginaw County Medical Society was held December 12. The following officers were elected: President, Mathew Kollig; vice president, Dr. Martha Longstreet; secretary-treasurer, C. E. Toshach; medico-legal advisor, W. J. O'Reilly; board of directors, Arthur Grigg, Henry J. Meyer, B. B. Rowe.

The Rev. Fr. Suprenant spoke on "The Thinking Man."

C. E. Toshach, Secretary.

BERRIEN COUNTY

The Berrien County Medical Society met in Niles at the Four Flags hotel on December 12th.

Following a rabbit dinner, a business meeting of the Society was held. The nominating committee reported the names of Dr. H. O. Westervelt of Benton Harbor as president; Dr. J. J. McDermott of St. Joseph as vice president, and Dr. W. C. Ellet of Benton Harbor as secretary and treasurer.

It was moved and supported that these names be accepted and that a unanimous vote be cast by the secretary.

The paper of the evening was given by Dr. C. F. Boys of Kalamazoo. His topic was "Goitre." Dr. Boys gave a very interesting and matter-of-fact talk, with a brief classification of types and case history discussion of each. His paper was given in a direct and clear fashion and was very well received. The discussion that followed was general in nature and slightly more informal than usual.

After the discussion, Dr. Boys, with the aid of his amateur movie camera, showed the members some extremely clear and interesting pictures which he had taken on his recent elk hunting expedition in Wyoming.

The evening was therefore a very successful one from a scientific viewpoint, as well as a social one.

W. C. Ellet, Secretary.

HILLSDALE COUNTY

The Annual Meeting of the Hillsdale County Medical Society was held at the "Lantern Tea Room" Hillsdale, January 10, 1929, at 6 o'clock.

After an excellent dinner, the meeting was called to order by the President, Dr. H. C. Miller. Minutes of last meeting read and approved.

The Society then proceeded to the election of officers for the ensuing year resulting as follows:

President, Dr. E. C. Bechtol, Montgomery; Vice President, Dr. C. J. Poppen, Reading; Secretary-Treasurer, Dr. D. W. Fenton, Reading.

Dr. Poppen then read an interesting paper on "Some Infections of the Tonsils." He described the follicular, membranous and ulcerative forms of infection, as well as the abscess of the tonsil or quinsy and pointed out the great difficulty of distinguishing some of the milder forms from diphtheria and scarlet fever. The discussion was very full and was participated in by all present.

Dr. Green then brought up the question of proposed medical legislation, explaining the nature and scope of proposed bills.

In view of the tragic death of Dr. and Mrs. J. M. Barnes in an automobile accident on Sunday, January 6th, it was

"RESOLVED, That we, the members of the Medical Profession of Hillsdale County deeply deplore the loss of a much esteemed member of this Society. That we wish to assure the members of his family of our heartfelt sympathy in their loss, which is ours also, and that of the community in which he lived."

The Secretary was directed to present the foregoing resolution to the bereaved family; and to spread it on the minutes of the Society.

DR. J. M. BARNES

James Madison Barnes was born at Ft. Wayne, Indiana, January 3, 1865. He died on Sunday evening, January 6th, 1929, at the hospital in Hudson, Michigan, following an automobile accident, in which Mrs. Barnes was instantly killed, and

in which he received injuries which resulted in his death a few hours later.

He was the only child of Benjamin Franklin and Catherine (Black) Barnes.

He received his academic preparation at the Fayette, Ohio Normal School, and at Wooster College, Wooster, Ohio.

After having completed his work in these schools, he taught penmanship and business management for a time in Sherwood College.

In 1891 he matriculated at the University of Michigan in the medical department. The following year he entered Toledo Medical School where three years later he received his Doctor's Degree. He also took post-graduate work at the Chicago Post-Graduate Medical School.

He began the practice of medicine in Blissfield, Mich., but in 1896 located in Waldron, Mich., where for 32 years he has been in active practice.

He was married on April 22, 1890 to Miss Jennie Joughin. Mrs. Barnes died March 10, 1922.

In 1925 he was married to Mrs. Lillian Heckman, who with him met such a tragic death.

Dr. Barnes was a member and an elder of the Church of Christ. He was a member of the Hillsdale County Medical Society; Michigan State Medical Society; American Medical Association, and had served as a member of the Volunteer Medical Association during the World War.

He is survived by his four children; Ruth A. of Ypsilanti; Franklin of Meadville, Pa.; Hugh of Chicago, and Mrs. Katherine Kortier of Jackson, Mich.; also three grand-children, Neil, Lynn and Ruth Ann Barnes.

Dr. Barnes was a fine example of the now fast-disappearing family physician and held a firm place in the needs and affection of the community of Waldron.

D. W. Fenton, Secretary.

MACOMB COUNTY

The first meeting of Macomb County Medical Society was held January 7, at Colonial hotel, Mt. Clemens. Dr. H. Wass of Utica, Mich., was elected to membership of the society. Applications for membership were received from Dr. R. E. Hawley of St. Claire Shores, and Dr. Paul Gageby, Warren, Mich. These were referred to the membership committee.

The members of the society regret the loss to the profession and to the society of Dr. James G. White, who passed away on December 21, 1928. Dr. White was a man of high ideals and commanded respect from all men in the community.

Dr. J. Scher read important extracts from the proposed legislation to be introduced to the next session of the legislature and urged members to secure the allotted number of names for the petitions to be circulated on behalf of same.

The speaker at this meeting was Dr. H. E. Northrup, chief obstetrician at Highland Park General Hospital. His subject was, "Deaths Incident to Everyday Obstetrical Problems." Dr. Northrup stressed the importance of pre-natal care.

Dr. L. M. Coulter of the State Department of Health, spoke to the society on behalf of the establishment of a County Health Unit. This matter was tabled for further consideration.

J. N. Scher, Secretary.

ST. CLAIR COUNTY

A regular meeting of this society was held at

the Harrington hotel, Port Huron, Michigan, Thursday, January 10, 1929.

Supper was served to twelve at 6:30 p. m., and the meeting called to order by President Kesl at 8:15 p. m., with the following members and guests present: Dr. R. E. Cumming of Detroit, and Dr. J. B. Porter of Port Huron, were present as guests and the following doctors, members of the society: Heavenrich, Waters, MacKenzie, Wellman, Patterson, Thomas, Kesl, Battley, Caster, Lane and Smith.

Dr. R. E. Cumming of Detroit, addressed the society on "Obstruction at the Vesical Neck Not Due to Prostatic Hypertrophy." The speaker reported several interesting cases, illustrating them by means of lantern slides. "In all cases of obstruction," said Dr. Cumming, "a most careful examination should be made, not only of the bladder, but also of the prostatic urethra by means of the cystoscope." One cause of obstruction, according to Dr. Cumming, and one which is sometimes overlooked, is the condition wherein a pouch is formed behind the prostate following the evacuation of a prostatic abscess. The speaker also discussed extravasation of urine into the soft tissues in injuries of the urethra and emphasized the necessity of an early suprapubic cystotomy with multiple three-inch incisions throughout the infiltrated areas. "So important is early treatment," said Dr. Cumming, "in these conditions, that we have our residents trained to perform suprapubic cystotomy and widespread incision of the extravasated subcutaneous tissues, at once, upon admission of a patient." Dr. Cumming presented two specimens of the prostate gland, illustrating unusual pathology. Several instruments for examination of the bladder, as well as for electric cautery, were shown to those present by Dr. Cumming.

Following the conclusion of the address, discussion was opened by Dr. D. W. Patterson, followed by Doctors MacKenzie, Heavenrich, Thomas and others, after which Dr. Cumming replied to many questions relative to urological problems and conditions.

The president thanked Dr. Cumming for visiting the Society and presenting such an interesting theme.

The meeting adjourned at 10 p. m.

George M. Kesl, President.

KALAMAZOO COUNTY

The forty-fifth annual meeting of the Kalamazoo Academy of Medicine was held December 18, 1928. The afternoon business meeting and scientific program was held in the academy rooms. The annual banquet and evening entertainment tendered by the Upjohn Company of Kalamazoo was held in the banquet hall at their plant.

The afternoon meeting was called to order at 1:30 by the president, Dr. W. E. Shackleton.

The minutes of the November meeting as printed in the bulletin were approved.

The report of the auditing committee was read. Moved by Dr. Andrews and seconded by Dr. Westcott that report be accepted and the committee be discharged. Carried.

The communications from Doctors Kiefer and Warnshuis regarding the proposed legislation was read and discussed. Referred to the legislative committee.

Election of Officers: Dr. Andrews nominated Dr. W. E. Collins for president. Dr. C. E. Boys moved that the nominations be closed and the

secretary be instructed to cast unanimous ballot for Dr. Collins. Seconded by Dr. Stewart. Carried. The report of the nominating committee was as follows:

First Vice President—Dr. William Hoebeke.
Second Vice President—Dr. Olin H. Stuck.
Third Vice President—Dr. F. B. Crowell.
Treasurer—Dr. Hugo Aach.
Councilor—C. E. Boys, Kalamazoo.
Librarian—Dr. Clara Unrath.
Members Board of Censors—Dr. C. A. Bartholomew, Dr. A. E. Pullon.
Delegates to the State Society—Dr. R. D. Thompson, Dr. F. T. Andrews.
Alternate Delegates—Dr. J. F. Berry, Dr. Paul Schrier.

Submitted and signed by

W. R. Vaughan, Chairman,
D. C. Rockwell
G. M. Riley
Arthur A. McNabb
L. E. Westcott.

Moved by Dr. Stewart that this report be accepted and adopted. Seconded and unanimously accepted.

Dr. Shackleton reminded the Academy of those members who have been confined to their homes for several weeks with influenza. Dr. Thompson moved that they be remembered with flowers from the Academy. Seconded by Dr. Andrews and carried.

Dr. A. A. McNabb took the chair while the retiring president gave his address.

The scientific program was given by Dr. Temple Fay of the University of Pennsylvania, Philadelphia, Pa. His talk concerned epilepsy and the part played by the function of the Pacchionian bodies in the production of this condition. His theories concerning the physiology of the Pacchionian bodies were well substantiated by X-ray lantern slides and movies. Much of his research work and that of his associates on this subject is entirely new and unpublished and had been presented on only two previous occasions. Those who did not spare the time to attend this most interesting of all talks before the Academy certainly missed a chance of a lifetime. It is regrettable that more did not take advantage of this excellent program.

The banquet at the Upjohn Company's establishment was certainly up to, if not above, the standard set in previous years.

The toastmastership of Dr. O. R. Yoder was excellent, his introduction of the speakers with well chosen words no doubt stimulated them to do their best.

Wilbur Payne's address of welcome made everyone feel welcome and gave us an insight into the trials and tribulations of a pharmaceutical house in trying to give the physicians something that is of real value in their practice.

Dr. Ward E. Collins gracefully accepted the presidency of the Academy for this year and promised to lead if we will follow.

John A. Scott, Professor of Classical Languages, Northwestern University, recited Greek, which I am quite sure no one understood, and then told us much of the excavations of Schiermann. Very interesting.

BAY COUNTY

At the annual meeting, held December 17, at the Wenonah hotel, retiring President E. F. Crummer tendered the complimentary banquet to the members.

Dr. B. Pengally of Flint then gave a very inspiring address on the subject, "The Social Opportunity and Responsibility of the American Doctor."

The following officers were elected for the ensuing year:

President—Dr. H. P. Lawrence.
Vice President—Dr. A. F. Stone.
Secretary-Treasurer—Dr. L. Fernald Foster.
Medico-Legal Committee—Dr. A. W. Herrick.
Delegate—Dr. E. F. Crummer.
Alternate—Dr. A. D. Allen.

We have just learned of the death of one of our retired members, Dr. R. J. Smith, Whittemore, Mich. Dr. Smith's death occurred last October, but due to his inactivity it was just brought to our attention.

L. Fernald Foster, Secretary.

MARQUETTE-ALGER COUNTY

The regular December meeting of the Marquette-Alger County Medical Society was held at the Marquette branch prison on Tuesday afternoon, December 4th. The following guests were present: Doctors Simon Levin and Neilson of Houghton; Doctors King, Gregg and Curtain of Calumet; Dr. Manthei of Lake Linden, and Dr. Webster of Sault Ste. Marie.

A dinner was served at 1:20, following which the meeting was called to order by the president, Dr. A. W. Hornbogen at 2:15. The speaker of the day was Dr. Frank Smithies of Chicago, who gave a most interesting and instructive talk, illustrated by lantern slides, on the subject, "Gastric Hemorrhage; Its Significance and Treatment."

This was followed by a trip of inspection through the prison. The business meeting was adjourned to the January meeting when election of officers will be held.

Russell L. Finch, Secretary.

CALHOUN COUNTY

The annual business meeting of the Calhoun County Medical Society took place at the Kellogg Inn, Tuesday, December 4, 1928, at 5 p. m. Business session was called to order by the president, Dr. R. H. Harris. The secretary's report of the last meeting, as printed in the Bulletin, Volume XI, No. 10, was accepted as printed.

The name of Dr. Harvey C. Hansen, Battle Creek, Mich., graduate of University of Michigan, application for membership was read and referred to the executive committee.

Names of Dr. L. J. Brunie and Dr. Yolanda Brunie having been passed upon by the executive committee, were elected to membership to the society.

The following were elected unanimously to serve as officers for the ensuing year:

President—Dr. R. V. Gallagher, Battle Creek.
Vice President—Dr. Wilfrid Haughey, Battle Creek.

Secretary and Treasurer—Dr. Harry B. Knapp, Battle Creek.

The standing committees who were present made reports in connection with their several duties, others not present sent written reports. The Venereal Disease committee chairman, Dr. W. R. Chynoweth, reported that they were unable to proceed with a definite program of lectures, etc., for the reason that their proposed program, having been referred to the executive committee earlier in the year, was never acted upon by them,

nor were they given instructions to proceed. Dr. C. R. Hills, chairman of the tuberculosis committee, made a written report, and it is printed elsewhere in the Bulletin.

The president, Dr. Harris, retired in order to meet the speaker of the evening. Vice President, Dr. Gallagher, took the chair. Dr. Robert Fraser presented the proposition to invite the Trilogical Society, and the Indiana Academy of Oto-laryngology and Ophthalmology, to hold their meeting in Battle Creek, in December, 1929, together with the Calhoun County Medical Society. It was moved that the Calhoun County Medical Society co-operate in sponsoring this Eye, Ear, Nose and Throat convention in Battle Creek, and that an invitation be extended to them and a committee appointed to work out details. Carried.

The following committee was appointed: Dr. Robert Fraser, Dr. Wilfrid Haughey, Dr. Ben Holtom.

Under unfinished business the secretary and treasurer's financial report was received and placed on file and made part of the minutes.

Financial statement of Calhoun County Medical Society as at December 4th, 1928:

Cash on hand, Dec. 4, 1927.....	\$ 41.43
Receipts	
Membership Dues, 1928	1,621.00
From Advertising	96.00
Membership Dues, 1929, paid in advance....	105.00
Hygeia Assessments	164.00
	\$2,027.43
Disbursements	
State Per Capita Tax	\$1,080.83
Flowers	18.58
Entertainment	54.95
Printing, Stationery, Etc.	38.33
Secretary's Expense, Postage, Phone, etc.	62.18
Printing Bulletin	176.15
Hygeia Subscriptions	351.05
Secretary's Fee	50.00
	\$1,832.07
Balance on hand Dec. 4, 1928.....	\$ 195.36

We have examined the reports from which the above statement was compiled, and respectfully report as follows:

All receipts were checked to bank of deposit, and disbursements were checked against cancelled vouchers, and found to be in order.

The balance on hand at December 4th, 1928, amounting to \$195.36, was verified, and found to be in agreement with the bank records.

Croydon, Sutherland & Co.

Public Accountants.

Battle Creek, Mich., December 4, 1928.

Attention was called to the fact that the alternates and delegates to the State Society had not been elected. It was moved that the present delegates and alternates be re-elected. Carried. There was no new business and the motion to adjourn was made and carried.

Harry B. Knapp, Secretary.

At 6:30 o'clock p. m., the annual dinner of the Society took place in banquet hall at the Kellogg Inn. Eighty members and their wives enjoyed the dinner together. Music during the dinner hour was furnished by Mrs. Alta Drever. At the end of the dinner, Mr. Harry Hacker of this city, rendered two vocal selections.

The president, Dr. Harris, introduced the officers elect to the society and then called upon Dr. George Hafford, of Albion, to introduce the speaker of the evening, Dr. G. Carl Huber, of Ann Arbor, Mich.

Dr. Huber's talk was much appreciated and was listened to with a great deal of interest. He discussed the historical development of the University of Michigan, paying special emphasis to the strong type of men who laid the foundation of the present medical department. He mentioned the fact that the Anatomy Laboratories at Michigan at the time of its inception in the eighties had twenty microscopes, which were more than Harvard Medical School had at that time. At this time, also, the curriculum was increased from two to three years, and, in 1890, to four years. This was made necessary because of the new discoveries in bacteriology, chemistry, etc. He paid his respects to Professor Henry Sewell, who came from John Hopkins University, and who worked out the theory of immunization. He paid tribute to the work of Dr. Victor Vaughn, who became Dean in the medical department at the end of the eighties. He was a vigorous and hard working scientist. The men whom Vaughn selected on the faculty "earned their spurs," and many contributions to science came forth from this staff.

Vaughn instituted the combined course of two years in science and four years of medicine, giving the science and medical degrees which is now compulsory. Dr. Huber thinks that the present curriculum is subject to revision and that post-graduate study should not lead to a degree.

The talk was listened to with great interest, especially by the older physicians who were in Ann Arbor in the early days of its history.

Meeting adjourned.

TUBERCULOSIS COMMITTEE REPORT

Your committee wishes to submit a brief report of the work carried on by the Calhoun County Tuberculosis Association in the Calhoun County Public Hospital for the year ending September 30, 1928.

At the Calhoun County Hospital during the year there were held 50 clinics and 610 examinations made. There were found 105 cases of tuberculosis, 22 suspects and 41 cases to be kept under observation; 42 cardiac cases; 27 cases of chronic respiratory infections, non-tuberculosis, such as asthma, bronchiectasis and post-pneumonia; 7 cases of incipient thyroid. Out of the 105 tuberculous cases, 82 were admitted to the Calhoun County Public Hospital, 10 were non-residents and were referred to their own county or state institutions, and the remainder either changed climate or refused hospitalization. The non-tuberculous cases were referred to their family physicians for treatment.

The Anti-Tuberculosis Association had two nurses in the field doing social service and follow-up work. Whenever a case of tuberculosis was discovered, the nurse visited the home and attempted to bring all contact cases to the clinic for examination. After patients had been discharged from the hospital as arrested cases, the nurse follows up these cases, and sees that they report periodically to the clinic for a check-up.

The Tuberculosis Association nurse has checked up a little over 6,000 cases, and in doing this work various doctors in the county have given their services gratis.

This, in an abbreviated way, will give you an

idea of the work that is carried on by the Association.

The Tuberculosis Association and the Calhoun County Public Hospital wish to express their appreciation of the whole-hearted support that they have received, with the possibility of one or two exceptions, from all the physicians of the county.

Bone and joint cases in children, for the reason that they have an obvious lesion, we have found no difficulty in disposing of. We simply get an order through the Judge of Probate Court and send them to Ann Arbor.

At the clinics we have seen this year at least thirty cases of definite tracheal bronchial tuberculosis in children, ranging from the age of six to fifteen, and also a great number of under-nourished contact cases, which we consider pre-tuberculous and should be under observation.

We have no facilities at the Calhoun County Public Hospital for the care of these types of cases. Therefore, we recommend that the Calhoun County Public Hospital build an addition for the care of tuberculous children; this addition to be a Preventorium, a permanent structure to be operated twelve months, three hundred and sixty-five days in the year, for the care of tracheal, bronchial, pre-tuberculous and contact cases, for the hygienic, dietetic and systematic check-up of these cases under medical supervision.

Your committee feels that a Preventorium is of paramount importance, and no tuberculosis program is complete or functioning efficiently without it.

C. R. Hills, Chairman.

GRAND TRAVERSE-LEELANAU COUNTY

The annual meeting of the Grand Traverse-Leelanau County Medical Society was held at the J. D. Munson hospital on December 10, 1928.

Dr. Frederick C. Warnshuis of Grand Rapids, secretary of our State Society, gave a very instructive Dry Surgical Clinic in the afternoon.

The banquet of the retiring president was given in the Memorial pavilion, and we had as guests three state representatives and our state senator. Doctors Thirlby and Warnshuis gave the gist of the new proposed legislative bills. This was followed by talks by the senator and each of the representatives, all of whom seemed to favor these bills.

President Rinear presided over the annual meeting, which directly followed the dinner. There were twenty members present.

Dr. Warnshuis gave a short talk on the activities of the State Society, and on what the State Society gives us in return for our dues.

The election of officers for the next year then took place with the following results:

President—George F. Inch, Traverse City.

Vice-President—L. R. Way, Traverse City.

Secretary-Treasurer—E. F. Sladek, Traverse City.

Medico-Legal—F. P. Lawton, Traverse City.

Three new members were then elected to our Society: Philip Sheets, Traverse City; G. W. Bruner, Traverse City, and T. W. Thompson, Traverse City.

Dr. Pauline Beregoft, Traverse City, presented a very elaborate paper on "Diseases of the Breast" from a Histo-Pathological standpoint. This paper was thoroughly discussed by all members present.

E. F. Sladek, Secretary.

Regular meeting of the Grand Traverse-Leelanau County Medical Society was held at the J. D. Munson hospital on January 8, 1929.

President Geo. F. Inch opened the meeting with a few remarks in which he pleaded that the success of the year's activities of the Society depends upon the attendance and co-operation of all the members.

Petitions for the proposed new legislation were handed to Doctors Kyselka, Inch, Minor, Swartz, Thirlby and Sladek.

Dr. J. W. Gauntlett presented a case of a painful lame foot, of long standing, of a girl 18 years old.

The matter concerning the proposed series of health lectures in the Grand Traverse High schools, as sponsored by the Joint Committee on Public Health Education, was brought up and voluntary selection of subjects was accepted by the Society.

The following members were present: Doctors Inch, Kyselka, Way, Minor, Gauntlett, Swanton, Swartz, Thirlby, Lawton, Sladek and Smieseth.

E. F. Sladek, Secretary.

UNDULANT FEVER CONQUEST MAKES SCIENTISTS CASUALTIES

The conquest of the world's latest threatening disease, undulant fever, is causing heavy casualties among the scientists who are engaged in the fight. While the disease is not often fatal, it is highly infectious and almost all the men and women who have been studying it have acquired it, in spite of every precaution. In this respect undulant fever is like tularemia, another comparatively new disease. These two are causing grave concern in public health circles because of their rapid and wide spread during the last few years. Tularemia besides being very infectious, also results in death in many cases.

In this country four scientists of the U. S. Public Health Service have suffered from undulant fever, the latest one attacked being Dr. Edward Francis, who also acquired tularemia when he was investigating that disease. He had recovered, however, from tularemia before the attack of undulant fever. Of the others attacked by undulant fever, one, B. T. Stockrider, a laboratory technician, has entirely recovered. The other two, Miss Alice Evans and Dr. G. C. Lake, have recovered sufficiently to resume their work, but they have not yet regained health entirely, and are still subject to return attacks of the disease. It is these recurring attacks after periods of apparent recovery which give the disease its name of undulant fever.

Tularemia always attacked the laboratory workers during the first work on it. All six of the men who studied it for the U. S. Public Health Service acquired it, some of them had it twice. The same thing has been observed in other countries. The Lister Institute of London recently asked the Public Health Service for cultures of the organism causing tularemia, so that their scientists could study the disease. When the cultures were sent, warning was also sent that it must be handled with extraordinary care. In spite of this, one of the workers at the Institute acquired the disease. Knowledge gained in the study of the disease has now taught the investigators how to handle it safely.

Tularemia is usually acquired from rabbits who have the disease. Undulant fever may be acquired from infected goats, cows or other cattle or from their milk.—Science Service.

THE DOCTOR'S LIBRARY

Offering Suggestions and Recommendations

THE MEDICAL CLINICS OF NORTH AMERICA—(Issued serially, one number every other month). Volume 12, Number 3. (New York number, November, 1928). Octavo of 334 pages with 64 illustrations. Per Clinic year, July, 1928 to May, 1929. Paper, \$12.00; Cloth, \$16.00 net. W. B. Saunders Company, 1928, Philadelphia and London.

There are reports from 22 clinics. In this up-to-date volume the medical man can obtain with a minimum of time the ideas prevalent in the practice of the leading internists in New York City. It is quite impossible to pick out any special article as they are all appealing. An excellent book.

THROMBO-ANGIITIS OBLITERANS—Clinical, Physiologic and Pathologic Studies. By George E. Brown, M. D. and Edgar V. Allen, M. D., Division of Medicine, Mayo Clinic, Collaborating in Pathology with Howard R. Mahorner, M. D., Fellow in Surgery, The Mayo Foundation. 12 mo. of 219 pages with 62 illustrations. Cloth, \$3.00 net. W. B. Saunders Company, 1928, Philadelphia and London.

This Mayo Clinic monograph deals very exhaustively with the subject discussing history, etiology, pathology as well as the various clinical types. And finally, diagnosis and treatment. The study is based upon the observation of over 300 cases. One of the authors has made a pathological study of 27 amputated specimens. It is a valuable study of peripheral vascular disease. The little work is well illustrated and contains 10 pages of bibliography.

ROENTGENOLOGY—Its early history, some basic physical principles and the protective measures. By G. W. C. Kaye, M. A., D. Sc. With forty-nine illustrations. Paul B. Hoeber, Inc., New York. Price, \$2.00.

This is a fascinating little work written by a master on the subject. It is an extension of the Caldwell lecture given before the American Roentgen Ray Society's Montreal meeting. The writer traces the history of radiology, describes the nature of the X-rays, and discusses at length the subject of X-ray protection and concludes with a forecast of radiology to the effect that its biggest field is likely to be found in the science of biophysics.

THE PRACTICE OF REFRACTION—W. Stewart Duke-Elder, M. A., D. Sc., M. D. Assistant Ophthalmic Surgeon to St. George's Hospital. 208 Illustrations. P. Blackiston's Son & Co., Philadelphia, Pa. Price, \$4.00.

The author declares in his preface that his object has been to produce a practical book of the greatest clinical value rather than a work on optics. The book is not burdened with mathematical formulae. The art of refraction cannot be acquired from books. Success is attained only by patient practice. Books at least can serve only as guides. Emphasis is properly placed on Retinoscopy which the author describes as the most useful method which when performed by an expert gives reliable results to an accessory of 0.25 D.

THE MEDICAL CLINICS OF NORTH AMERICA—(Issued serially, one number every other month). Volume XII, Number II. (Nebraska University Number, September, 1928). Octavo of 254 pages with 40 illustrations. Per Clinic year, July, 1928 to May, 1929. Paper, \$12.00; Cloth, \$16.00 net. W. B. Saunders Company, 1928, Philadelphia and London.

LABORATORY MANUAL OF THE MASSACHUSETTS GENERAL HOSPITAL—Roy R. Wheeler, M. D., and F. T. Hunter, M. D. Second edition and thoroughly revised. Lea and Febiger, Philadelphia, Pa., Price, \$1.75.

This little book has been thoroughly revised since the first edition in 1922. It covers the field ordinarily embraced by a manual on clinical laboratory methods as concisely as it is possible in the space of 100 pages. This little book should find a place in the office of every doctor whether he does his own laboratory work or not. It is the outgrowth of the requirements of actual practice in the Massachusetts General Hospital.

EARLIEST AMERICANS HAD BAD TEETH

Recent discoveries of very ancient Indians in New Mexico not only indicate that the early red men lived as long ago as 1500 B. C., but show that their teeth, in that far-off time, had suffered the same ravages as we endure today: caries or cavities, pyorrhea and alveolar abscesses. The causes for the development of these diseases in such an early race are hard to determine. Their food was meat and grains, such as we use today. Carious cavities, of huge dimensions, developed in unworn teeth, so we cannot ascribe caries to the wearing down of the teeth by coarse food. Pyorrhea was rampant and resulted after the age of forty-five or fifty, either in total loss of the teeth or their serious impairment. Abscesses are infrequent, and never so huge as is often seen in the pre-Columbian Peruvians. Alveolar fistulae have not yet been seen. A single case of impaction, out of fifty-four skeletons, was found. Recent investigations of the cause of pyorrhea tend to show that the trouble is a matter of bodily disturbance finding localized expression in the mouth. Its nature is, however, not yet clear and it is thought that examinations of the dental conditions in ancient races will aid in understanding the nature of pyorrhea.—Science Service.

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